NASA Procedural Requirements

NPR 8820.2E
Effective Date: October 07, 2003
Expiration Date: October 07, 2008

COMPLIANCE IS MANDATORY

Printable Format (PDF)

Subject: Facility Project Implementation Guide

Responsible Office: Facilities Engineering and Real Property Division

APPENDIX C: Forms and Instructions

NASA Forms and Instructions

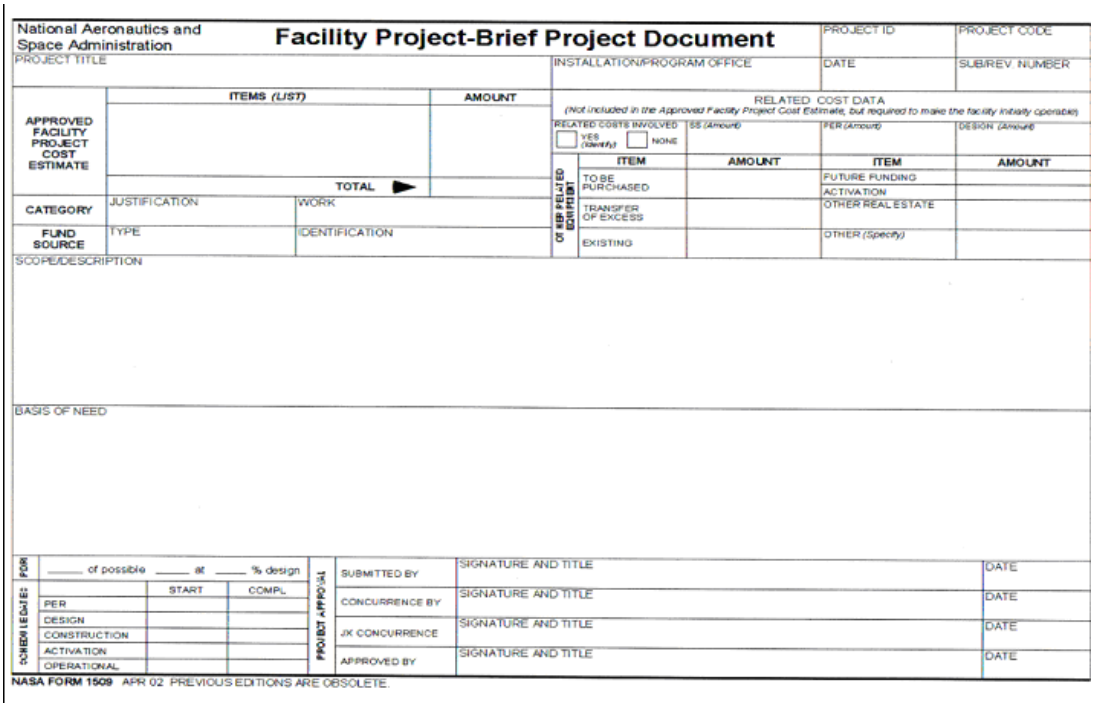
Title	Form Number
C.1 Facility Project - Brief Project Document	1509
C.2 Facility Project Cost Estimate	1510
C.3 Flash Bid Report	1579
C.4 Facility Project Pre-advertisement Review Checklist	1580
C.5 Long Form Writeup	Long Form Writeup

Other Forms/Formats Applicable to CoF Projects - Samples Only

C.6 Allotment Authorization	NASA Form 504
C.7 Resources Authority Warrant	NASA Form 506A
C.8 Transfer and/or Notification of Acceptancet of Accountability of Real Property	NASA Form 1046
C.9 Notification of Real Property Transfer	NASA Form 1046A
C.10 Minor Facility Projects - Summary Brief Project Document	NASA Form 800/01
C.11 Transfer and Acceptance of Military Real Property	DD 1354
C.12 Performance Evaluation - Construction Contracts	SF 1420
C.13 Architect-Engineer and Related Services Questionnaire	SF 254
C.14 Architect-Engineer Related Questionnaire for Specific Project	SF 255
C.15 Example - POP 5-Year Plan Submittal	Format

NASA Form 1509

Facility Project-Brief Project Document



National Aeronautics and Space Administration

Facility Project-Brief Project Document

PROJECT ID | PROJECT CODE

PROJECT TITLE | INSTALLATION/PROGRAM OFFICE | DATE | SUB/REV. NUMBER

APPROVED FACILITY PROJECT COST ESTIMATE

ITEMS (LIST)	AMOUNT
TOTAL ►	

RELATED COST DATA
(Not included in the Approved Facility Project Cost Estimate, but required to make the facility initially operable)

RELATED COSTS INVOLVED ☐ YES (Identify) ☐ NONE | SS (Amount) | PER (Amount) | DESIGN (Amount)

OF NEP RELATED EQUIPMENT

ITEM	AMOUNT	ITEM	AMOUNT
TO BE PURCHASED		FUTURE FUNDING	
		ACTIVATION	
TRANSFER OF EXCESS		OTHER REAL ESTATE	
EXISTING		OTHER (Specify)	

CATEGORY: JUSTIFICATION | WORK

FUND SOURCE: TYPE | IDENTIFICATION

SCOPE/DESCRIPTION

BASIS OF NEED

SCHEDULE DATES: FOR ____ of possible ____ at ____ % design

	START	COMPL.
PER		
DESIGN		
CONSTRUCTION		
ACTIVATION		
OPERATIONAL		

PROJECT APPROVAL

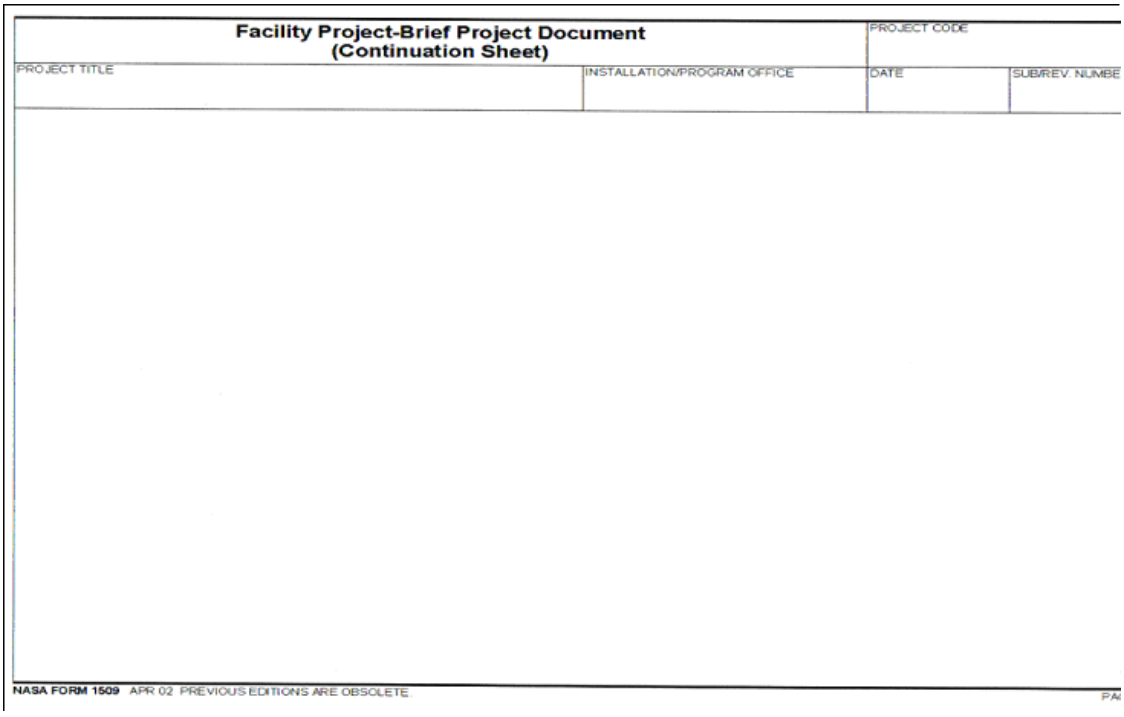
	SIGNATURE AND TITLE	DATE
SUBMITTED BY	SIGNATURE AND TITLE	DATE
CONCURRENCE BY	SIGNATURE AND TITLE	DATE
JX CONCURRENCE	SIGNATURE AND TITLE	DATE
APPROVED BY	SIGNATURE AND TITLE	DATE

NASA FORM 1509 APR 02 PREVIOUS EDITIONS ARE OBSOLETE

Figure C.1-a NASA Form 1509, Facility Project - Brief Project Document

NASA Form 1509 (Continuation)

Facility Project-Brief Project Document



Facility Project-Brief Project Document (Continuation Sheet)

PROJECT CODE

PROJECT TITLE | INSTALLATION/PROGRAM OFFICE | DATE | SUB/REV. NUMBE

NASA FORM 1509 APR 02 PREVIOUS EDITIONS ARE OBSOLETE

Figure C.1-b NASA Form 1509, Facility Project - Brief Project Document (Continuation)

C.1 Instructions for NASA Form 1509, Facility Project - Brief Project Document

Instructions for preparation of Facility Project - Brief Project Document, NASA Form 1509, follows. The bolded titles in the following paragraphs provide the cross references to the NASA Form 1509 shown in Figures C.1-a and C.1-b..

C.1.1 Project ID - an identification number assigned by the submitting organization.

C.1.2 Project Code - instructions for assigning the project code are contained in the Facility Project Management System (FPMS).

C.1.3 Project Title - a short, descriptive title that includes the type of work.

a. Discrete Projects. The title should include the type of work and describe the primary focus of the project accomplishment. Official facility name(s) can be useful but are not required. Facility numbers generally are not used in discrete project titles, program names, or relationships shall not be used.

b. Non-discrete Projects. The title should include the type of work and facility name(s) as used in approved master plans, and assigned facility number(s) (e.g., Construction of Solar Simulator Facility (110) and Rehabilitation of Lunar Simulator Facility (130)). When more than one facility is involved in a single project, use the following format: Rehabilitation of Three Administrative Facilities (104, 202, 301).

C.1.4 Installation/Program Office - indicate the appropriate Field Installation and the Headquarters organization advocating the project (e.g., GRC/R or MSFC/M). If the project location is different from the appropriate Field Installation, the installation would be indicated as shown in the following examples:

a. "GRC/PB" for Plum Brook Station, and

b. "MSFC/MAF" for Michoud Assembly Facility

The Headquarters office having advocate status is indicated as follows:

a. M Office of Space Flight (OSF),

b. R Office of Aerospace Technology (OAT),

c. S Office of Space Science (OSS), and

d. Y Office of Earth Science (OES).

C.1.5 Date - indicate the date of the preparation of the form.

C.1.6 Submission/Revision Number - the submission/revision number provides a record of the submissions of the Field Installations and approvals of Headquarters.

a. Centers - indicate consecutively with capital letters. The initial submission is A. Subsequent revisions are B, C, and

b. Headquarters - indicate consecutively with numbers. First approval is 0. Subsequent approvals are 1, 2, 3.... For example, the submission/revision number will be B/1 after the second submission of the project by the Field Installation and the second approval of the project by Headquarters.

C.1.7 Approved Facility Project Cost Estimate - the cost estimate will fully disclose all costs including contractor services to execute the planned facility project and make it operational (excluding related cost data described in Subparagraph (9)). The anticipated amounts for labor, materials, supplies, collateral equipment, land acquisition, and site development for planned work are included in the estimate.(Guidelines for collateral equipment are provided in a subsequent paragraph on this subject.)

a. It is recognized that in certain instances the planning for the execution of the facility project will include the use of engineering and construction management services that are provided by contract. When applicable, the cost estimate will identify the cost for these contractual services as follows:

(1) Engineering services for review and analysis of shop drawings, and

(2) Construction management services including evaluation of work progress, preparation and maintenance of critical path method (CPM) network diagrams, resolution of problems due to unanticipated changes in scheduled work, and other similar services.

b. The cost for the accomplishment of specialized craftwork, when it is planned that NASA civil service employees will provide this, will be identified and shown as a separate element in the estimate.

c. The cost estimate may be a total for the entire project or broken down into specific segments or work packages. For a discrete project, the approved facility project cost estimate listed on the NASA Form 1509, is the maximum that can be expended on the project or specific segments or work packages thereof. The delegated approval authority must approve any increase before additional obligations may be incurred. Provisions for increases in cost estimates for minor projects are provided on the Minor Facility Projects Summary Brief Project Document, Form 800/01. The approved facility project cost for routine Field Installation funded facility work may be exceeded by up to 15-percent (project cost not to exceed $500,000) provided there is no change in scope. A Facility Project Cost Estimate (NASA Form 1510) is required for each facility project estimated to cost $75,000 or more. It should be noted that, although preparation of the NASA Form 1510 satisfies cost estimate requirements for preparation of the budget, more detailed and updated estimates will be necessary as design and construction activities proceed.

d. The cost estimate must also provide a reasonable amount for contingencies, usually 10-percent. The FPM uses the latitude provided by the contingency funds to resolve local construction problems. Established contractual, and fiscal management and control procedures will be followed in the use of contingency funds. The basic premise should be to complete the project work on schedule and within the approved amount. The general guidance is that, when establishing the amount for contingencies, consideration should be given to such factors as the nature and scope of work, material availability, interfaces or dependencies with other planned work or other items that could impact the work, and schedule. Some of these factors are illustrated in the following:

(1) A modest contingency amount should suffice when the work is to construct a standard structure, and

(2) It is prudent to provide an increased contingency amount when there is the potential for encountering significant unanticipated problems such as modifying an existing space launch complex.

e. If the project is to be carried out by a construction agent, the estimated cost must also include the costs associated with the use of such an agent during the construction phase. The estimated cost of each facility project must be based on the most recent related cost experience available in the geographical area involved and contain the projection of such experience to reflect anticipated future cost conditions. Related costs are not included in the facility project cost estimate but must be identified elsewhere on the NASA Form 1509 under related costs (paragraph (9)).

f. Collateral equipment encompasses building-type equipment, built-in equipment, and large substantially affixed equipment/property that is normally acquired and installed as a part of a facility project. A definition of this term is included in Appendix A.

g. Guidelines for determining whether equipment is to be considered substantially affixed - the question of whether a unit of equipment is to be substantially affixed is one resolved only by proper judgment in consideration of the actual unit of equipment coupled with its relationship to, or connection with, the building or structure involved. If there is a clear and significant relationship or connection, then the unit of equipment is considered to be substantially affixed and, thus, designated as collateral equipment. It is required that in each case the judgment applied be realistic, practical, and consistent. This situation being a judgment decision, there are no clear-cut parameters that can or should be mechanically applied in order to reach a determination. This determination involves certain key

considerations such as the extent of actual installation work involved, the degree to which special foundations or utility services are required, and the nature and extent of facility restoration work which would be involved if the unit of equipment were to be removed.

h. These and other considerations must be reviewed together to arrive at the proper determination as to whether a unit of equipment is substantially affixed or not. In each case, it is necessary to evaluate the relationship or connection, which will exist between the unit of equipment which is under consideration and the building or structure to which it is related.

i. A unit of equipment will, in any event, be considered to be substantially affixed if work described under either of the items below is required and the work is estimated to cost $100,000 or more:

(1) Provide any special foundations, utility services, or other facilities support for a unit of equipment and to actually install the unit, and

(2) Demount the unit of equipment and perform any facility restoration work which might be involved in its removal from the NASA Form 1509, Facility Project-Brief Project Document, related building or structure.

j. Questionable cases involving possible deviations from the foregoing guidelines will be referred to the Director, Facilities Engineering Division, NASA Headquarters, for resolution.

C.1.8 Category: Justification - the categories for justification include:

a. Life Critical - work required to correct conditions that are dangerous to the life and health of personnel with the potential of fatal injuries if they are not corrected.

b. Safety - work required to correct a safety hazard or to provide adequate fire protection for personnel, high-value equipment, materials, or records that are difficult or impossible to replace and that are needed in the performance of mission or other essential tasks.

c. Program Critical - work that is urgently needed to support a specific R&D program or mission and the effort has to be completed by a stated date for the successful accomplishment of that program or mission.

d. Environmental - work required to correct an existing condition that may pollute the environment. It includes the correction of conditions to meet current environmental regulations. All environmental projects will indicate Environmental on this line item as the projects are dictated by environmental regulatory requirements.

e. Energy Conservation - a facility project can include Direct Energy Projects that are principally justified to reduce energy consumption and costs; or Related Energy Projects that are justified for other purposes but do contribute to the reduction of energy consumption.

f. Institutional Critical - work urgently required to correct an existing condition involving institutional facilities such as accelerating deterioration that requires prompt correction. It includes the improvement of utility systems that support major areas of the installation. The emphasis is on priority work that is not program related.

g. Program Related - work required to correct deficiencies in facilities that support R&D programs or missions. It includes deterioration that limits support of tests or operations and must be corrected in the current budget year. It also includes direct program projects that do not qualify as program critical projects.

h. Cost Effective - work that is not program critical or institutional critical; but that, if accomplished, would result in demonstrable cost savings or other benefits over a reasonable period of time. Energy Related projects are relevant to this category.

i. Occupational Safety and Health Related - work required to meet current standards of the Occupational Safety and Health Act of 1970. Such work is necessary to improve the working environment for employees but is less urgent than work performed under the category of safety. This category is intended to accomplish work that is clearly needed for full compliance with the law and Executive Order (EO) 12196, Occupational Safety and Health Programs for Federal Employees, as amended.

j. Institutional Routine - work that is clearly necessary in the future but could be deferred to a subsequent budget year if necessitated by budget constraints.

k. Emergency Repair - work that qualifies for funding from the CoF account under the provisions of Section 309 (b), National Aeronautics and Space Act of 1958, as amended.

C.1.9 Category: Work -

C.1.9.1 Categories for work reflect the type of work included in the project. The predominant type is stated first. The following terms should be used: repair, rehabilitation, modification, construction, and land acquisition. The category Work also identifies the fiscal year that the project was submitted in the President's Congressional budget.

C.1.9.2 For minor facility projects, when more than one category of work is involved, the project will be classified in accordance with the predominant work. If a project is 51 percent rehabilitation work and 49 percent construction work, it will be submitted as a rehabilitation project.

C.1.9.3 Additional data for a minor program projects that exceed $500,000 will also be entered in this block. The following applicable entry will be used:

a. FY01 Category A - indicates the project was included and fully defined in the FY01 Congressional budget submission (note: change FY as appropriate),

b. FY01 Miscellaneous Category A - indicates funding for the project was originally planned from resources budgeted for miscellaneous projects in the FY01 Congressional submission (note: change FY as appropriate), and

c. Category C - indicates the requirement for the project has not been recognized in any Congressional budget submission.

C.1.10 Fund Source: Type - the type of funds to be used for the facility project should be indicated as R&D, or CoF. If CoF, insert one of the following fund source code numbers:

a. FY 1995 and subsequent Projects.

(1) 30 - SAT Appropriations for discrete and minor facility projects associated with Science, Aeronautics and Technology (SAT) programs,

(2) 39 - MS Program Appropriations for Minor construction and additions at various locations not exceeding $1.5M,

(3) 43 - MS Program Appropriations not in excess of $200,000 per project for Minor construction and additions, repairs, and modification and rehabilitation of facilities, and

(4) 44 - MS Appropriations for discrete projects for non-program (MS) activities.

b. FY 1995 through FY 1999. 35 - HSF Appropriations for discrete and minor facility projects associated with Human Space Flight

(HSF) programs.

c. FY 1997 and subsequent. 37 - MS Program Appropriations for Repair and Rehabilitation and Modification of facilities at various locations not exceeding $1.5M.

d. FY 2000 and subsequent.

(1) 53 - HSF Appropriations for discrete and minor projects associated with the International Space Station HSF.

(2) 55 - HSF Appropriations for discrete and minor projects associated with Launch Vehicles and Payload Operations.

e. A detailed discussion of the fund source identification system is contained in the Financial Management Manual (FMM 9121-56).

C.1.11 Fund Source: Identification - for each facility project a four-digit number is assigned under SAT, HSF, and MS appropriations for FY 1995 and subsequent years (see FMM 9121-30, Facility Project Number). The first and second digits identify the site location or type of work as described in FMM 9121-30 paragraph a. The Third and fourth digits identify the serial number assigned to the project.

C.1.12Related Cost Data - under the concept of full disclosure, all costs related to a facility project that are required to construct or execute the project must be set forth. These related costs must be approved separately, as appropriate, but they are not included in the approved facility project cost estimate (see Appendix D, Facility and Other Related Costs, section D.2, Related Costs.).

a. Related Costs Involved - check appropriate box:

(1) If none provide appropriate data on PER and design from the following: N/A if not required or not accomplished or in-house if accomplished by in-house personnel.

(2) If yes complete all entries. Note: if not required or not applicable or not accomplished, use N/A.

b. SS (Amount) - the cost to prepare special studies. Enter in-house if being done by in-house personnel.

c. PER (Amount) - the cost to prepare a PER including reports, site surveys, soil investigations, Enter inhouse if being done by in-house personnel.

d. Design (Amount) - the cost for the final design of the project. Enter in house if being done by in-house personnel.

e. Other Related Equipment - if equipment (other than collateral equipment which must be part of the facility project) including office furniture is required to make the facility initially operable, the following information must be provided:

(1) To Be Purchased - the total estimated cost for procurement, transportation, and installation of noncollateral equipment to be purchased under program appropriations.

(2). Transfer of Excess - the total book value of the excess equipment (collateral and noncollateral) to be transferred from another NASA Field Installation or Government agency. Estimated costs for transportation and installation of noncollateral equipment are included. For collateral equipment to be obtained by transfer of excess, however, the estimated out-of-pocket transportation, installation, and rehabilitation costs must be included in the approved facility project cost estimate.

(3) Existing - the estimated total value of equipment and real property improvements on-hand at the Field Installation that can be utilized for the project.

(4) Future Funding - show the planned future funding for any subsequent related requirement.

(5) Activation - indicate the estimated costs associated with the installation of noncollateral (ground support) equipment, checkout, and initial operation of the facility that are funded as part of the operational costs (e.g., the installation of ground support equipment, the integration and checkout of combined facility and equipment systems, and the demonstration and acceptance of an operable facility). Enter in-house if accomplished by in-house personnel.

(6) Other Real Estate - indicate the estimated rental costs if applicable. The purchase of land, easements, and rights-of-way must be part of the facility project and is not included in this entry.

(7) Other (Specify) - other related costs not included above (specify).

C.1.13 Scope/Description -

C.1.13.1 A concise, clear statement of the project's physical size and characteristics is identified here. This information should be quantified to the maximum extent possible (e.g., number of buildings, length, width, height, number of stories, basement size, design capacity, gross area, net usable area, amount of heating and cooling, fire and safety features, and special features). A sketch, drawing, or site plan should also be attached if it helps to describe the project. The format for the description should be similar to the format used for OMB and congressional budget submissions. A statement must also be provided indicating completion of the environmental review process and the type of documentation prepared (i.e., Preliminary Environmental Survey (PES), Environmental Analysis (EVAL), FONSI, EIS, and Record of Decision (ROD)). If the environmental process is not complete or normal documentation has not been prepared, a brief explanation must be attached.

C.1.13.2 The project scope described in this entry will be the approved scope of the project during its execution. It cannot be exceeded without prior written approval of the approving authority nor will it be reduced during execution so that functional requirements will not be satisfied.

C.1.14 Basis of Need

C.1.14.1 The basis of need or justification is the most important element of the proposal. It highlights the project's priority and describes and justifies any relationship to any current or new project. Specific engineering studies, economic evaluations, or other special considerations supporting the projects should also be identified.

C.1.14.2 The statement should begin with a concise statement of the functional purpose for which the project is needed.

C.1.14.3 For projects required to satisfy a Federal, state, and local regulation; the regulatory agency dictating the need for the project; and the specific requirement to be met must be clearly stated.

C.1.14.4 The first paragraph is the most important element of the entire justification. It must clearly summarize (in no more than five short sentences) the major elements of the project and identify its necessity. The details that follow the justification must be relative and supportive. This paragraph should be followed by the justification itself. The justification must be complete and factual. Whenever possible, it should specifically refer to related mission or program requirements and to the role of the proposed facility in the mission or program. The justification should clearly establish the requirements for the facility and should indicate the effect on mission or program requirements and to the role of the proposed facility in the mission or program accomplishment if the facility is not provided. Actual or anticipated workload schedules, flight schedules, or any other type of data to support or strengthen the justification should be attached. The justification for projects providing personnel housing should discuss the personnel requirements, deficiencies in existing housing, resulting excessive administrative costs, and plans for the use of the existing space for other purposes or its disposal.

C.1.14.5 Support facilities, such as libraries, auditoriums, and cafeterias, must be justified separately and specifically.

C.1.14.6 The justification should answer the following questions as they apply to the specific proposal:

a. Why is this project necessary today at this location? How will it assist in the accomplishment of missions or tasks? What purpose will this facility serve? Who will use this facility? What is its proposed capacity? How many people will use it? Are the people on board now or must they be recruited?

b. What is being used today to meet this requirement in terms of adequacy, scope, personnel, cost, and condition? Why is it not possible to continue to meet needs in this way?

c. What is the basis for the physical scope requested?

d. If the mission or task involved is now being carried out in other facilities, what disposition will be made of them if the proposed project is approved?

e. If the requested facility is provided, what benefits will accrue? Benefits should be explained and not just listed. Examples include the following:

(1) Improved mission or task performance,

(2) Attraction and retention of high caliber personnel,

(3) Reduction in total human resources required,

(4) Reduction in energy requirements. Higher level protection (insurance) for personnel and property,

(5) Greater responsiveness, reliance, and performance in a mission or task role, and

(6) Amortization or trade-off in leases or costly facility substitutes.

f. If the proposed facility project is not approved, how will the mission or task be carried out? What degradation, hazards, or other adverse impacts must be recognized in such a course of action?

g. What is the required date for having this facility in operation? What is the estimated checkout time following construction? What slippage, if any, can be accepted, and at what impact?

h. Does this facility conform to NASA standards? And is it sited in accordance with approved master plans?

i. Are any components or features of the proposed facility project considered outside the present state-of-the-art in terms of design, fabrication, construction, checkout, or use? If so, what is the planned solution and what are the risks?

j. Does the facility project fulfill necessary safety standards? It is related to the reduction of risks from accident, fire, or other sources, or to the reduction or elimination of air, water, or other environmental pollution? If so, be specific and cite examples.

k. Does the proposed facility duplicate the capability of any similar facility in NASA, other Government agencies, universities, or industry? How detailed was the survey that found no similar facilities? If similar facilities exist, why is the proposed facility needed? The answer must be explained in terms of personnel costs, availability, limitations, and any other factors that will clearly show that the proposed facility is the only reasonable solution to the overall problem.

l. Is the proposed facility to be located in a flood hazard zone? A statement of findings on the evaluation of flood hazards should be included for each proposal where it is applicable. Is the evaluation and final determination in accordance with NPG 8580.1, Procedures and Guidelines for Implementing The National Environmental Policy Act and Executive Order 12114, paragraph 11.3, Floodplains?

C.1.15 PDRI - enter the projects actual PDRI score the total possible score, and the percent of design completion when the scoring was performed.

C.1.16 Schedule Dates - indicates the schedule dates for PER, design, construction (execution), and activation start, and the date the facility must be operational, if appropriate.

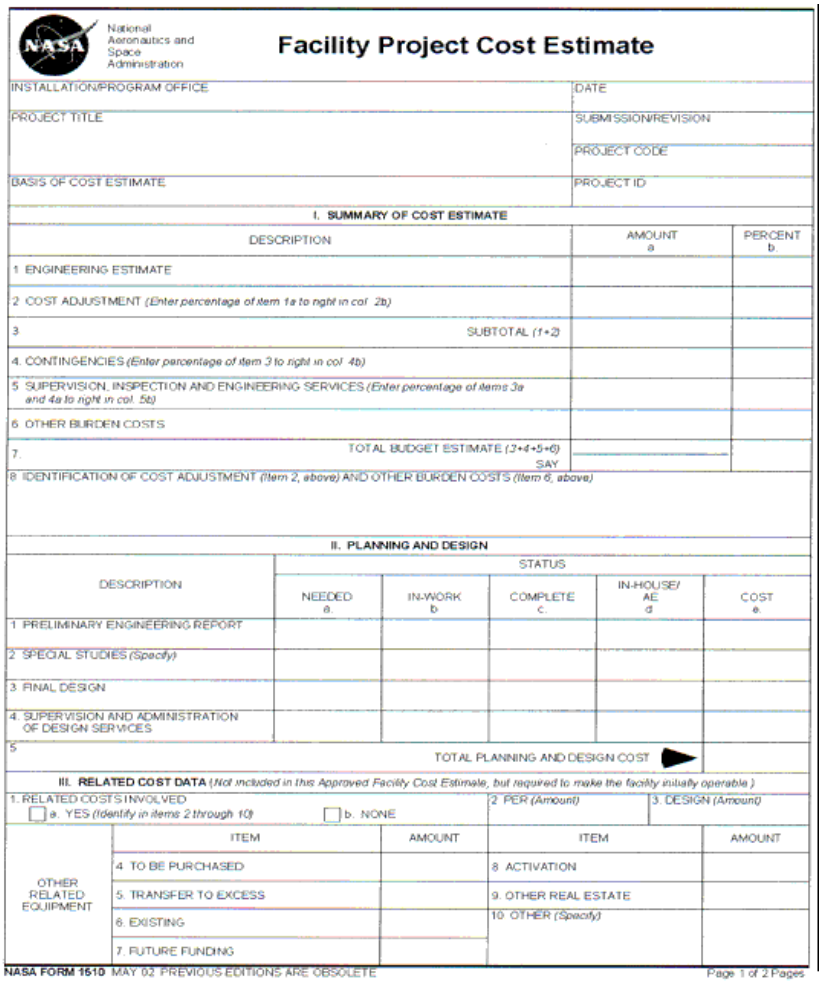
C.1.1.16 Submitted By - the signature and title of the Field Installation Director of the originating installation or designee is required on the project submitted to Headquarters for approval.

C.1.17 Concurrence By, JX Concurrence, Approved By - these entries are to be completed at the Headquarters level for projects submitted to Headquarters for approval. These blocks are also available for use as deemed appropriate for locally approved projects.

C.1.18 (1509 Continuation Sheet- use for any additional supporting data required for the project beyond what is listed in the Form 1509 (see Figure C.1-b).

NASA Form 1510

Facility Project Cost Estimate



National Aeronautics and Space Administration

Facility Project Cost Estimate

INSTALLATION/PROGRAM OFFICE	DATE
PROJECT TITLE	SUBMISSION/REVISION
	PROJECT CODE
BASIS OF COST ESTIMATE	PROJECT ID

I. SUMMARY OF COST ESTIMATE

DESCRIPTION	AMOUNT a	PERCENT b
1. ENGINEERING ESTIMATE		
2. COST ADJUSTMENT *(Enter percentage of item 1a to right in col. 2b)*		
3. SUBTOTAL *(1+2)*		
4. CONTINGENCIES *(Enter percentage of item 3 to right in col. 4b)*		
5. SUPERVISION, INSPECTION AND ENGINEERING SERVICES *(Enter percentage of items 3a and 4a to right in col. 5b)*		
6. OTHER BURDEN COSTS		
7. TOTAL BUDGET ESTIMATE *(3+4+5+6)* SAY		

8. IDENTIFICATION OF COST ADJUSTMENT *(Item 2, above)* AND OTHER BURDEN COSTS *(Item 6, above)*

II. PLANNING AND DESIGN

DESCRIPTION	STATUS: NEEDED a.	IN-WORK b.	COMPLETE c.	IN-HOUSE/ AE d.	COST e.
1. PRELIMINARY ENGINEERING REPORT					
2. SPECIAL STUDIES *(Specify)*					
3. FINAL DESIGN					
4. SUPERVISION AND ADMINISTRATION OF DESIGN SERVICES					
5. TOTAL PLANNING AND DESIGN COST					

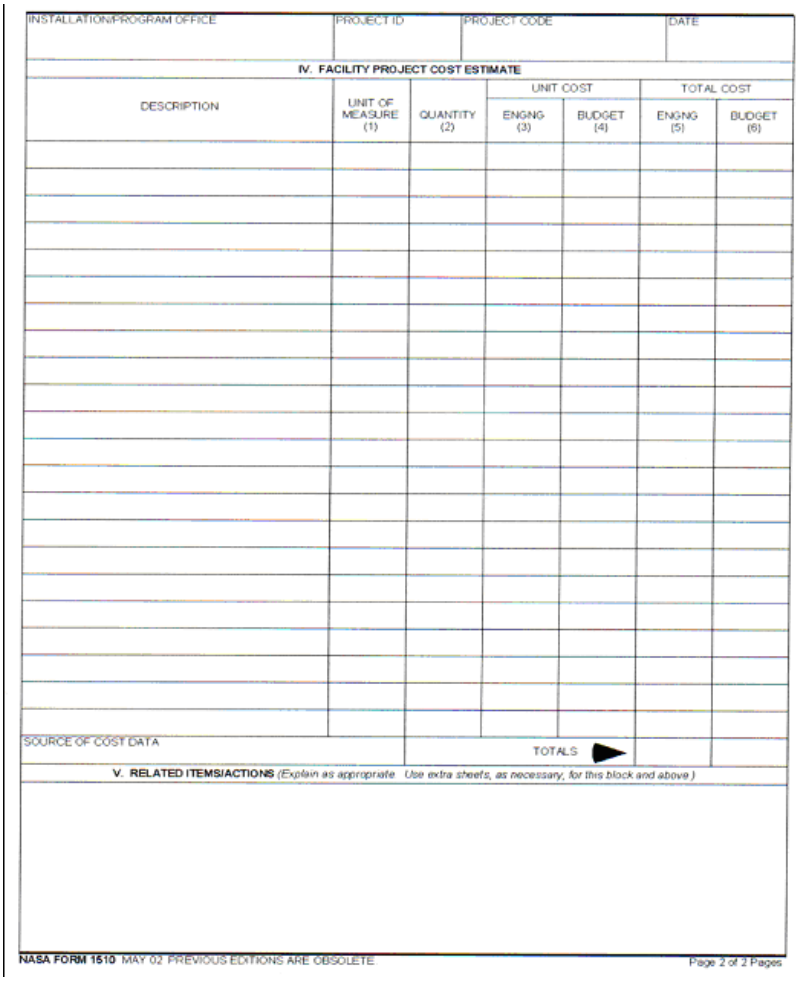
III. RELATED COST DATA *(Not included in this Approved Facility Cost Estimate, but required to make the facility initially operable.)*

1. RELATED COSTS INVOLVED ☐ a. YES *(Identify in items 2 through 10)* ☐ b. NONE | 2. PER *(Amount)* | 3. DESIGN *(Amount)*

	ITEM	AMOUNT	ITEM	AMOUNT
OTHER RELATED EQUIPMENT	4. TO BE PURCHASED		8. ACTIVATION	
	5. TRANSFER TO EXCESS		9. OTHER REAL ESTATE	
	6. EXISTING		10. OTHER *(Specify)*	
	7. FUTURE FUNDING			

NASA FORM 1510 MAY 02 PREVIOUS EDITIONS ARE OBSOLETE Page 1 of 2 Pages

Figure C.2-a NASA Form 1510, Facility Project Cost Estimate



INSTALLATION/PROGRAM OFFICE	PROJECT ID	PROJECT CODE	DATE

IV. FACILITY PROJECT COST ESTIMATE

DESCRIPTION	UNIT OF MEASURE (1)	QUANTITY (2)	UNIT COST ENGNG (3)	UNIT COST BUDGET (4)	TOTAL COST ENGNG (5)	TOTAL COST BUDGET (6)
SOURCE OF COST DATA		TOTALS				

V. RELATED ITEMS/ACTIONS *(Explain as appropriate. Use extra sheets, as necessary, for this block and above.)*

NASA FORM 1510 MAY 02 PREVIOUS EDITIONS ARE OBSOLETE Page 2 of 2 Pages

Figure C.2-b NASA Form 1510, Facility Project Cost Estimate (Continuation)

C.2 Instructions for NASA Form 1510, Facility Project Cost Estimate

Instructions for preparation of Facility Project Cost Estimate, NASA Form 1510, follow. The bolded titles in the following paragraphs provide the cross references to the NASA Form 1510 shown in Figures C.2-a and C.2-b.

C.2.1 Installation/Program Office, Project Title, Date, Submission/Revision Number, Project Code, Prior Project Code - provide the same information as shown on NASA Form 1509.

C.2.2 Basis of Cost Estimate -

C.2.2.1 The basis of the cost estimate should be indicated as follows:

a. Criteria and concepts only,

b. Preliminary engineering report,

c. Partially complete design (35 percent, 60-percent, or 90-percent),

e. Completed final design,

f. Contractor's proposal, and

g. Other (explain).

C.2.2.2 The date and originator of the estimated costs should also be indicated (i.e., June 2001 in-house estimate or June 2001 ABC Architect-Engineer Company).

To provide a uniform base for estimating costs for budget year estimates, the best available local or area experience as of the beginning of the past-year should be used. In addition, the estimated local factor for increased costs should be applied to provide for cost increases (actual and anticipated) from the prior year base point and compounded annually to the project midpoint of construction. The basis of any such factor should be indicated (e.g., Engineering News-Record, March 2001). These costs will be reflected as a percentage added to the engineering estimate and will be included in the space provided under the Summary of Estimate.

C.2.3 I - Summary of Estimate - the amount and percentage of the total estimated cost for the items listed below will be indicated in the appropriate entry blocks.

C.2.3.1 1. Engineering Estimate - the total engineering cost estimate.

C.2.3.2 2. Cost Adjustment - the increase over the base cost used to cover anticipated cost increases compounded annually to the mid-point of the proposed construction period. Headquarters Facilities Engineering Division determines the percentage used. If higher

rates for cost growth are needed to reflect local conditions, they must be supported by a special rationale establishing the uniqueness of the local conditions for the project.

C.2.3.3 3. Subtotal of (Engineering Estimate + Cost Adjustment) - represents the project cost without contingencies, supervision, inspection, and engineering services (SIES) and other burden costs.

C.2.3.4 4. Contingencies - indicate normal construction contingencies estimated for changed conditions and essential change orders. Generally, it is 10-percent of the subtotal above.

C.2.3.5 5. Supervision, Inspection and Engineeding (SIES)- the amount for the supervision and administration of the construction contract by a construction agency. Generally, it is 5-10-percent.

C.2.3.6 6. Other Burden Costs - any other burden costs such as Government furnished property (GFP) refurbishment and/or transportation of equipment that may be included in the project.

C.2.3.7 7. Total Budget Estimate - total estimated cost to provide an initially operable facility or total project as set forth in the scope and description of the facility project.

C.2.3.8 8. Identification of Cost Adjustment - provide a description of the elements that constitute these factors.

C.2.4 II - Planning and Design - provide data for the entries below:

C.2.4.1 1. Preliminary Engineering Report (PER) - the actual or estimated cost for the preparation of the PER for the project, normally 1-1/2 to 2 percent, its status, and method of accomplishment should be indicated in the appropriate blocks.

C.2.4.2 2. Special Studies - the actual or estimated cost for any required special studies, normally 2 percent that are not conceptual studies, such as soil borings or structural analyses should be indicated. The specific studies, their status, and method of accomplishment should also be described.

C.2.4.3 3. Final Design - the actual or estimated cost for the preparation of final design, including contractual plans and specifications, the status and method of accomplishment, should be entered.

C.2.4.4 4. Supervision and Administration of Design Services - the amount for supervision and administration of design by the construction agency.

C2.4.5 5. Total Planning and Design Costs - the summary of the items in column f.

C.2.5 III - Related Cost Data - provide a breakout and description of related cost data here and on NASA Form 1509. See Appendix D, Facility and Other Related Costs, section D.2 Related Costs for a partial listing of related cost items and type items to be included.

C.2.6 IV - Facility Project Cost Estimate -

C.2.6.1 The Field Installation must submit this information in considerable detail by each fiscal year for which funds have been provided or will be requested. See paragraph 3.19.3.1 for engineering estimate details and paragraph 3.20 for current cost estimate details. The formal submission to OMB or Congress by Headquarters may result in consolidation or regrouping of certain detailed cost breakdowns (see Figure C.1-2b).

C.2.6.2 The unit of measure, quantity, unit cost, and total cost must be shown for each item that can be reasonably identified and quantified. The use of lump sum (LS) should be avoided as much as possible if meaningful quantities and unit costs can be applied. Any item, estimated to cost over 20 percent of the total project cost estimate, should be subdivided to show components and associated costs. The following are minimum breakdown items as applicable:

a. Interest in Real Estate - if the project includes proposed land acquisition or other interests in real estate, land and easement costs should be identified.

b. Site Development and Utilities Outside 5-Foot Line - costs normally associated with developing the site such as site clearance and demolition, earthwork and landscaping, storm and sanitary sewers, mechanical and electrical utilities, roads, bridges, marine facilities, and airfield pavements should be entered. Also, construction costs associated with the testing; excavation; and removal and treatment and disposal of hazardous contaminated soil, water, and/or groundwater should be identified. Elements of the work should be identified as separate procurement entities if such packaging would optimize procurement strategy and project control.

c. Building/Structure Within 5-Foot Line - includes construction costs for architectural/structural, mechanical, and electrical work; and, the associated collateral equipment. These items are listed in as many procurement packages as necessary to optimize procurement strategy and project control. The specific packaging should be compatible with the standard divisions of labor and/or contractual disciplines of the construction industry to avoid conflicts, overlaps, and other contractual complications. Each package should be numbered (e.g., First - Addition to Building; Second - Modification of Second Floor; Third - Air Conditioning). Each should include further breakouts of the following information.

(1) Architectural/structural - costs normally associated with foundations, structural framing, walls, roofing, finishes, and specialties should be entered.

(2) Mechanical - costs normally associated with mechanical building equipment such as HVAC and plumbing should be included. Built-in, nonseverable mechanical equipment should also be shown. If necessary for optimum procurement, such equipment should be shown as one or more segments.

(3) Electrical - costs normally associated with electrical building equipment such as transformers, motor starters and control centers, lighting fixtures, communications distribution systems, and wiring and distribution systems should be entered. Built-in nonseverable electrical equipment should also be shown. If necessary for optimum procurement, such equipment should be shown as one or more segments.

(4) Fire protection/safety - costs normally associated with fire protection/safety equipment and systems such as sprinkler heads, detectors, alarms.

(5) Environmental - construction costs normally associated with testing, decontamination/ cleanup, and removal and disposal of hazardous contaminated materials within a building. It includes asbestos demolition work such as testing; removal and disposal of the asbestos; building and material decontamination activities; and other such costs necessary in support of the facility project.

(6) Other - any other construction costs should be identified.

d. Other Collateral Equipment Not Included Above - costs for collateral equipment not shown above.

e. Special Features - special items significant enough to identify separately should be included here including plant and personnel protection (e.g., fallout shelters, flood control, and medical facilities); environmental controls necessary for protection of the environment as required by environmental regulations (e.g., air controls, water/groundwater pollution control such as special water/groundwater or sewage treatment, noise controls, and other environmental conditions); and, any secondary functions of the project such as provisions necessary to meet community needs or interfaces with other agencies or organizations. Cost estimates for

this section must comply with the following criteria and Federal regulations:

(1) Requirements to protect and enhance the environment for air and water pollution control, noise control, industry waste control, and other similar environmental conditions must meet National Environmental Policy Act of 1969 requirements.

(2) Health and safety requirements are covered in the Occupational Safety and Health Act of 1970 and EO 12196, Occupational Safety and Health Programs for Federal Employees, as amended.

(3) Construction in floodplains and wetlands is generally prohibited.

(4) Construction may be permitted in those cases in which the procedures, such as flood proofing, comparative evaluation, coordination, and public notice have been accommodated; and, it can be substantiated that the only practicable alternative is to construct in the floodplain or wetlands.

(5) Provision for operation of vending facilities by a blind person in all Federal structures occupied by 100 or more Federal employees and all buildings of 15,000 square feet or more that are visited by the public.

(6) Provisions for access by disabled persons including ramps, elevators, and other barrier-free facilities.

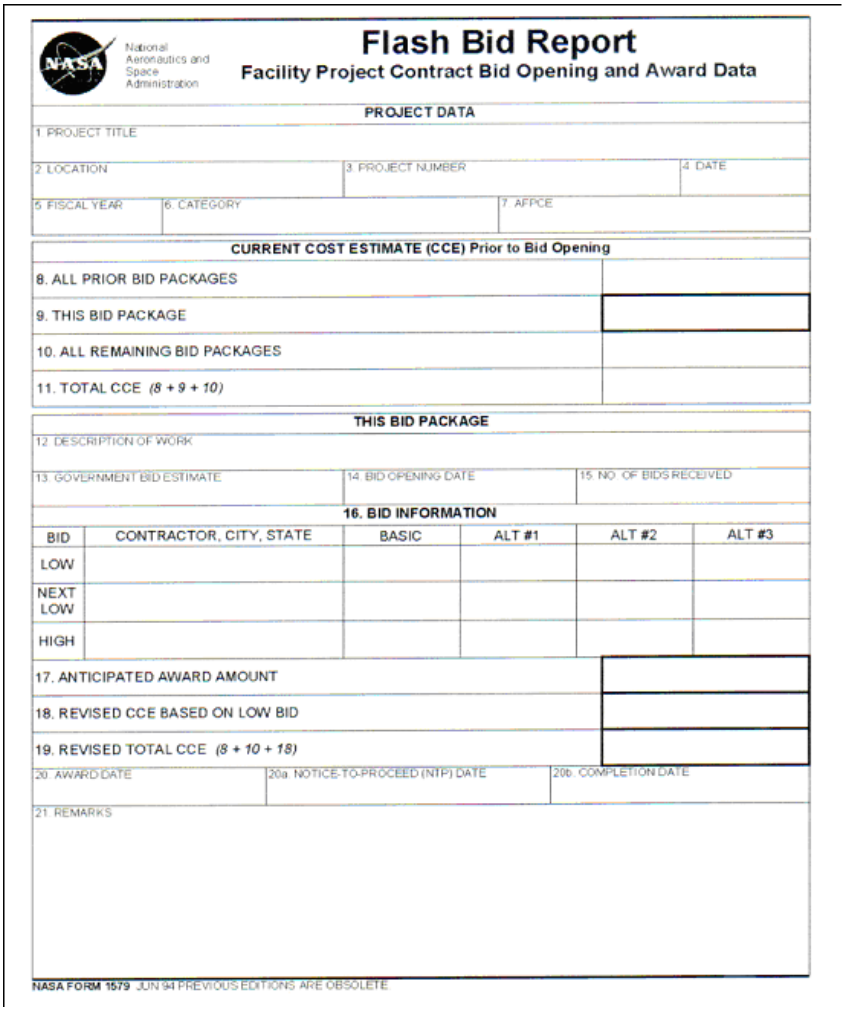
f. Totals -sum of the total costs for the Engineering and Budget columns of the form should be summarized here.

g. Source of Cost Data - source of the cost data (e.g., PER, contractor quotation, quantity take-off, recent procurement history) should be identified in this block.

C.2.7 V - Related Items/Actions - related items (additional procurement, program activity, or facility projects) which are not included under Part III - Related Cost Data (Subparagraph (5) should be explained here).

NASA Form 1579

Flash Bid Report



National Aeronautics and Space Administration

Flash Bid Report

Facility Project Contract Bid Opening and Award Data

PROJECT DATA

1. PROJECT TITLE

2. LOCATION | 3. PROJECT NUMBER | 4. DATE

5. FISCAL YEAR | 6. CATEGORY | 7. AFPCE

CURRENT COST ESTIMATE (CCE) Prior to Bid Opening

8. ALL PRIOR BID PACKAGES

9. THIS BID PACKAGE

10. ALL REMAINING BID PACKAGES

11. TOTAL CCE *(8 + 9 + 10)*

THIS BID PACKAGE

12. DESCRIPTION OF WORK

13. GOVERNMENT BID ESTIMATE | 14. BID OPENING DATE | 15. NO. OF BIDS RECEIVED

16. BID INFORMATION

BID	CONTRACTOR, CITY, STATE	BASIC	ALT #1	ALT #2	ALT #3
LOW					
NEXT LOW					
HIGH					

17. ANTICIPATED AWARD AMOUNT

18. REVISED CCE BASED ON LOW BID

19. REVISED TOTAL CCE *(8 + 10 + 18)*

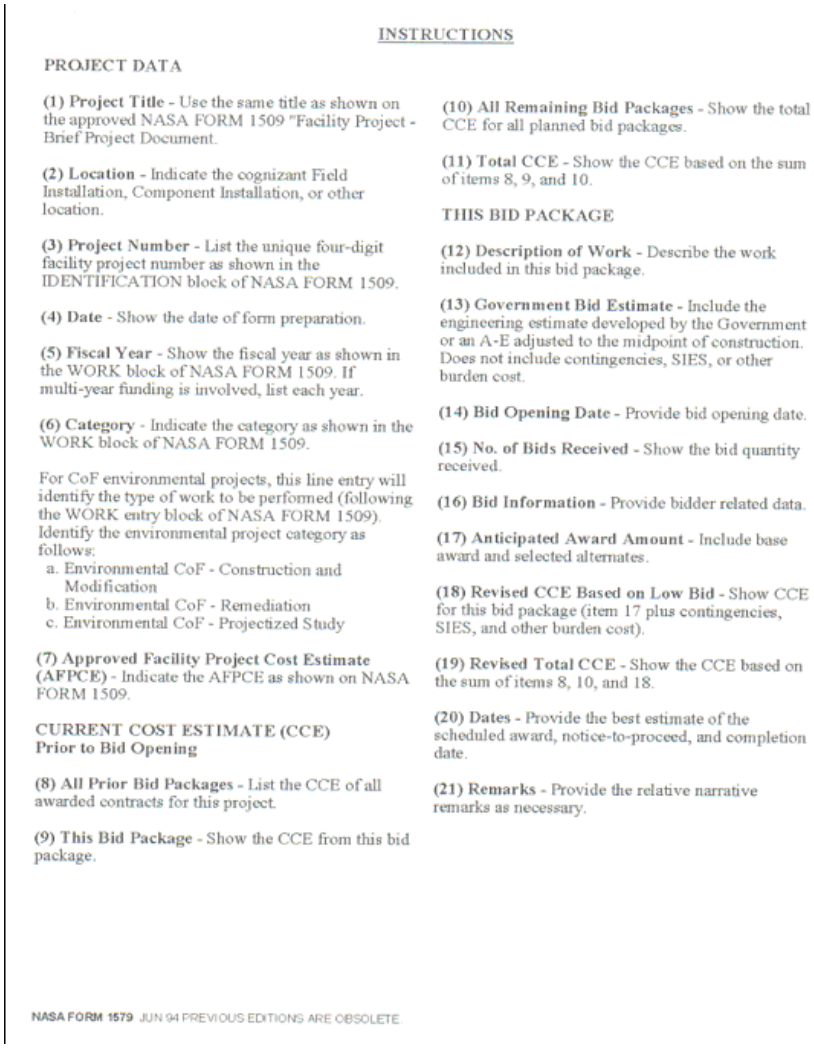
20. AWARD DATE | 20a. NOTICE-TO-PROCEED (NTP) DATE | 20b. COMPLETION DATE

21. REMARKS

NASA FORM 1579 JUN 94 PREVIOUS EDITIONS ARE OBSOLETE

Figure C.3-a NASA Form 1579, Flash Bid Report

C.3 Instructions for NASA Form 1579, Flash Bid Report



INSTRUCTIONS

PROJECT DATA

(1) Project Title - Use the same title as shown on the approved NASA FORM 1509 "Facility Project - Brief Project Document.

(2) Location - Indicate the cognizant Field Installation, Component Installation, or other location.

(3) Project Number - List the unique four-digit facility project number as shown in the IDENTIFICATION block of NASA FORM 1509.

(4) Date - Show the date of form preparation.

(5) Fiscal Year - Show the fiscal year as shown in the WORK block of NASA FORM 1509. If multi-year funding is involved, list each year.

(6) Category - Indicate the category as shown in the WORK block of NASA FORM 1509.

For CoF environmental projects, this line entry will identify the type of work to be performed (following the WORK entry block of NASA FORM 1509). Identify the environmental project category as follows:

a. Environmental CoF - Construction and Modification
b. Environmental CoF - Remediation
c. Environmental CoF - Projectized Study

(7) Approved Facility Project Cost Estimate (AFPCE) - Indicate the AFPCE as shown on NASA FORM 1509.

CURRENT COST ESTIMATE (CCE)
Prior to Bid Opening

(8) All Prior Bid Packages - List the CCE of all awarded contracts for this project.

(9) This Bid Package - Show the CCE from this bid package.

(10) All Remaining Bid Packages - Show the total CCE for all planned bid packages.

(11) Total CCE - Show the CCE based on the sum of items 8, 9, and 10.

THIS BID PACKAGE

(12) Description of Work - Describe the work included in this bid package.

(13) Government Bid Estimate - Include the engineering estimate developed by the Government or an A-E adjusted to the midpoint of construction. Does not include contingencies, SIES, or other burden cost.

(14) Bid Opening Date - Provide bid opening date.

(15) No. of Bids Received - Show the bid quantity received.

(16) Bid Information - Provide bidder related data.

(17) Anticipated Award Amount - Include base award and selected alternates.

(18) Revised CCE Based on Low Bid - Show CCE for this bid package (item 17 plus contingencies, SIES, and other burden cost).

(19) Revised Total CCE - Show the CCE based on the sum of items 8, 10, and 18.

(20) Dates - Provide the best estimate of the scheduled award, notice-to-proceed, and completion date.

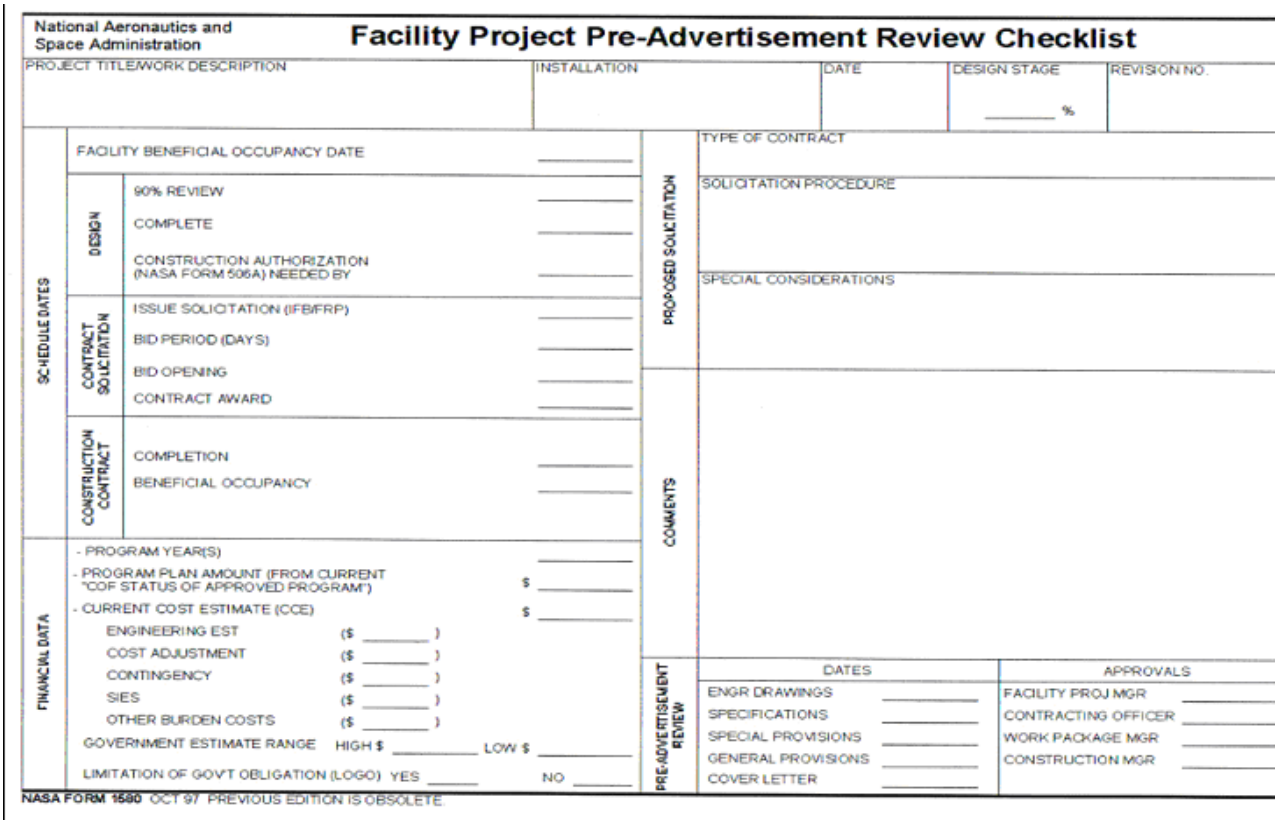
(21) Remarks - Provide the relative narrative remarks as necessary.

NASA FORM 1579 JUN 94 PREVIOUS EDITIONS ARE OBSOLETE

Figure C.3-b NASA Form 1579, Flash Bid Report Instructions

NASA Form 1580

Facility Project Preadvertisement Review Checklist



National Aeronautics and Space Administration

Facility Project Pre-Advertisement Review Checklist

PROJECT TITLE/WORK DESCRIPTION	INSTALLATION	DATE	DESIGN STAGE	REVISION NO.
			_____ %	

SCHEDULE DATES

FACILITY BENEFICIAL OCCUPANCY DATE _____

DESIGN
- 90% REVIEW _____
- COMPLETE _____
- CONSTRUCTION AUTHORIZATION (NASA FORM 506A) NEEDED BY _____

CONTRACT SOLICITATION
- ISSUE SOLICITATION (IFB/FRP) _____
- BID PERIOD (DAYS) _____
- BID OPENING _____
- CONTRACT AWARD _____

CONSTRUCTION CONTRACT
- COMPLETION _____
- BENEFICIAL OCCUPANCY _____

FINANCIAL DATA
- PROGRAM YEAR(S) _____
- PROGRAM PLAN AMOUNT (FROM CURRENT "COF STATUS OF APPROVED PROGRAM") $ _____
- CURRENT COST ESTIMATE (CCE) $ _____
  - ENGINEERING EST ($ _____)
  - COST ADJUSTMENT ($ _____)
  - CONTINGENCY ($ _____)
  - SIES ($ _____)
  - OTHER BURDEN COSTS ($ _____)
- GOVERNMENT ESTIMATE RANGE HIGH $ _____ LOW $ _____
- LIMITATION OF GOVT OBLIGATION (LOGO) YES _____ NO _____

PROPOSED SOLICITATION

TYPE OF CONTRACT

SOLICITATION PROCEDURE

SPECIAL CONSIDERATIONS

COMMENTS

PRE-ADVERTISEMENT REVIEW

DATES		APPROVALS	
ENGR DRAWINGS	_____	FACILITY PROJ MGR	_____
SPECIFICATIONS	_____	CONTRACTING OFFICER	_____
SPECIAL PROVISIONS	_____	WORK PACKAGE MGR	_____
GENERAL PROVISIONS	_____	CONSTRUCTION MGR	_____
COVER LETTER	_____		

NASA FORM 1580 OCT 97 PREVIOUS EDITION IS OBSOLETE

Figure C.4 - NASA Form 1580, Facility Project Preadvertisement Review Checklist

C.4 Instructions for NASA Form 1580, Facility Project Preadvertisement Review Checklist

Instructions for preparation of the Facility Project Preadvertisement Review (PAR) Checklist, NASA Form 1580, follow. The bolded titles in the following paragraphs provide the cross references to NASA Form 1580 shown in Figure C.4.

C. 4.1 Project Title/Work Description - provide a short title that includes the type of project (i.e., Modification of Vibration Test Laboratory, Construction of Central Data Processing Facility).

C.4.2 Installation - provide the name of the cognizant Field Installation.

C.4.3 Date - show the date that the form is prepared.

C. 4.4 Design Stage - provide the facility design progress as of the date shown in C.4.3; and, show this as a percentage of completion of final design (e.g., 90-percent).

C. 4.5 Revision Number - use a numerical sequence to identify revised submissions of the form.

C. 4.6 Schedule Dates - provide the dates for the items shown and bid period in days.

C. 4.7 Financial Data - provide the program year for the project funds and show the program plan amount, the CCE and entries for sub items shown on the sample form, and the Government estimate range. Show whether Limitation of Government Obligation (LOGO) applies.

C. 4.8 Proposed Solicitation -

C.4.8.1 Show the type of contract proposed for the facility project work (e.g., fixed price).

C.4.8.2 Describe solicitation procedure and explain any specialized requirements for fabrication or installation techniques or other items that are major factor in selecting the procedure.

C.4.8.3 Special considerations include factors such as small business set asides or need for special action to meet criteria for minority contractors. Also describe and explain any alternate bid items if applicable.

C.4.9 Comments - include any additional critical information pertinent to the project.

C.4.10 Preadvertisement Review -

a. Dates - show the PAR approval dates for the items shown on the sample form, and

b. Approvals - include the signatures of the key participants in the final PAR.

C.5 Instructions for Long Form Writeup

Instructions for preparation of the Long Form Write Up, follows.

The Long Form Writeup shall be no longer than one page. It is used to describe discrete Construction of Facilities (CoF) projects in the Agency's budget submissions to the Office of Management and Budget (OMB) and the Congress. Following the instructions are examples (Figures C.5-a, C.5-b and C.5-c) of completed Long Form Writeup.

C.5.1 PROJECT TITLE - a short, descriptive title that matches the NASA Form 1509 project title. Discrete project titles should include the type of facility work and describe the primary focus of the project accomplishment. Official facility name(s) can be useful but are

not required. Facility numbers generally are not used in discrete project titles, program names, or relationships shall not be used.

C.5.2 INSTALLATION - the full name of the Field Installation, or Component Facility where the projects work is to be performed or is associated.

C.5.3 COGNIZANT OFFICE - the responsible Program Office or other Headquarters Office which is the advocate for the project.

C.5.4 LOCATION - the place, city, county, state, or foreign country as appropriate. When the project includes work in separated locations, the phrase Various Locations is recommended.

C.5.5 FY XX COST ESTIMATE (Thousand of Dollars) - the detailed cost elements supporting the project as specified in paragraph 3.19.3, Section III: Engineering and Budget Estimate.

C.5.6 PRIOR YEARS FUNDING - funds that have been made available for planning, design, and construction of the project from prior years programs shall be provided.

C.5.7 PROJECT DESCRIPTION a brief narrative of the physical size and characteristics of the project to include type of work; land acquisition, construction, repair, rehabilitation and modification, and descriptions such as building name and number; area (i.e., gross and net); length, width, and height; number of floors; architectural work; structural work; mechanical work; major equipment to be installed (describe source and special or high cost features). This project description should be the same or equivalent to that on the NASA Form 1509 for the project.

C.5.8 PROJECT JUSTIFICATION - the justification provides a clear and concise explanation of the functional purposes for which the facility project is needed. It should specify the priority; and, as appropriate, describe and justify any relationship to any current or new program/project. Specific engineering studies, economic evaluations, or other special considerations in support of the project should be identified. The justification must clearly summarize the major elements of the project and identify its necessity. A simple statement expressing a need or desire for a facility will not be adequate. The justification must be complete, clear, thorough, and factual. Whenever possible, specific reference should be made to related program or project requirements; and to the role of the proposed facility in that program or project. The justification should clearly establish the requirements for the facility and should indicate the effect on program or project accomplishment if the facility is not provided. The justification paragraph in narrative form should provide answers to the following questions as appropriate:

a. Why is it necessary to include this project in the BY (timeframe)?

b. In what manner will it assist in the accomplishment of mission, project or tasks? How will the facility be used and by whom?

c. Are there any cost-payback or other efficiency benefits? Show data where possible.

d. What capacity (i.e., production or workload rate, flight rate) will be provided by the proposed facility?

e. What kind or type of development, test checkout, and evaluation functions will be performed in this facility?

f. How many people will this facility house?

g. What alternate solutions were considered to solve this problem/requirement? Why were the alternatives not adopted?

h. What facilities are now being used to meet this requirement in terms of adequacy, scope, personnel, cost, and condition? Why is it not possible to continue to meet needs as they are now being met?

i. Why must the equipment or system be replaced?

j. The rehabilitation and modification will provide what benefits?

k. Is the facility project which is being requested, related to necessary fulfillment of NASA safety standards/criteria; related to the reduction of risks from accident, fire, or other sources; or related to the reduction or elimination of air, water or other environmental pollution? If so, be specific and cite examples.

l. Why must the project be located at the proposed site and/or in this building as opposed to an alternate location?

m. Is an environmental impact statement required? If required, what is its status?

n. Is this project related to or dependent upon another project (e.g., a need to increase capacity of the central heating and cooling plant, fire protection, potable water system, central utility control system, data links)?

o. Address any other peculiar or special requirements not previously covered.

C.5.9 IMPACT OF DELAY - a statement of impacts if the project is not implemented.

C.5.10 Examples of Long Form Writeups

Following are three examples (Figures C.5-a, C.5-b, and C.5-c) of Long Form Writeups for different types of discrete projects. Note that in each case the writeup contains the necessary information, follows the same format, and is one page in length.

Example 1, Discrete Project for Restoration

PROJECT TITLE: **Restore Electrical Distribution System, Phase 4**

INSTALLATION: **Ames Research Center**

COGNIZANT OFFICE: **Office of Aerospace Technology**

LOCATION: **Moffett Field, Santa Clara County, CA**

FY 02 COST ESTIMATE (Thousand of Dollars)	**8,900**	**PRIOR YEARS FUNDING**:	**14,661**
Project Elements:		Construction	13,900
Replace High Voltage Switchgear and Transformers	1,500	Facility Planning and Design	761
Expand Ames Power Monitoring System	1,900		
Install Standby Generation	5,500		

PROJECT DESCRIPTION:

This project will modernize and repair the Center's primary electrical distribution system as part of a phased program to improve reliability. This is the fourth of approximately ten phases estimated to cost $50M. This phase replaces medium voltage switchgear and

transformers in 13 buildings. Nine of the buildings will get new medium voltage (7.2kV and 13.8kV) switchgear, circuit breakers, transformers; microprocessor based protective relays, and current and potential transformers (CT's and PT's) to allow connection to the new Ames Power Monitoring System. The other four buildings will get new relays, and CT's and PT's. The Ames Power Monitoring System (APMS) will be expanded to provide monitoring of the major office buildings. It will cover approximately 84 buildings with an actual total of approximately 50 hardware points (some of the buildings share the same points.) This phase also installs a 3.2 mega-watt Standby Generation/Un-interruptible Power Supply (UPS) to provide clean and continuous power for the Numerical Aerodynamic Simulation Facility (N258). Fuel storage tanks will be installed to provide extended hours of continuous operation. New 13.8kV switchgear, with the associated CT's, PT's, transformers, and relays will also be installed to interface the UPS to the existing N258 power system.

PROJECT JUSTIFICATION:

The existing 1945 vintage, Center-wide electrical system at Ames is worn out and unreliable. As a result, Ames has experienced increasing instances of power interruptions that have adversely impacted critical research. The old switchgear is unsafe to operate, and it is difficult to maintain because replacement parts are no longer available. New microprocessor based protective relays are more precise which will make for better relay coordination. New potential and current transformers are needed to provide data for the new Ames Power Monitoring System. The existing APMS data transmitted is not dependable and the accuracy of measurement is unpredictable. In addition to previous phases of the APMS task that allowed the monitoring of the major research facilities, this phase will connect the remaining major buildings to provide complete measurement and management of the electrical system at Ames. The APMS is a vital tool in today's rapidly changing and sometimes unreliable electric power supply environment. The Numerical Aerodynamics Simulation (NAS) facility is required to provide services on a 24-hour/7-day basis. Due to the rapidly changing electric power supply landscape, the electric utilities can no longer be depended upon to provide a reliable supply of power for the NAS. A UPS system is the only viable solution to ensure clean and uninterrupted electric power for this vital facility.

IMPACT OF DELAY:

Risk of injury to personnel maintaining hazardous switchgear and transformers would continue. In addition, power outages caused by electrical equipment failure would continue to not only adversely interrupt mission-critical research across the Center, but also prevent the Center from operating in an efficient, cost effective manner.

Figure C.5-a Example Long Form Writeup for Restoration Project

Example 2, Discrete Project for Repair

PROJECT TITLE: **Repairs to Air Conditioning Systems, Various Facilities**	INSTALLATION: **Langley Research Center**
COGNIZANT OFFICE: **Office of Aerospace Technology**	LOCATION: **Hampton, VA**

Sprinkler System

FY 02 COST ESTIMATE (Thousands of Dollars)	**3,300**	**PRIOR YEARS FUNDING:**	**532**
Project Elements:		Construction	---
Building 1239C:		Facility Planning and Design	532
Architectural, General, Controls & Electrical	400		
HVAC System	900		
Building 1299:			
Architectural, General, Controls & Electrical	750		
HVAC System	1,100		
150			

PROJECT DESCRIPTION:

A new variable air volume (VAV) system comprised of fan powered VAV terminal units with a hot water reheat coil will be utilized in Building 1299 and 1293C. A variable speed air handler with a variable frequency drive will be installed in the mechanical room and utilize chilled water from the existing air-cooled package chillers. A steam to hot water converter will provide hot water to the VAV heating coils. A direct digital control system will allow control and monitoring from Building 1215. The existing absorption chiller will be replaced with a new package unit in Building 1293C. The chiller will use the existing underground water lines. The cost includes piping modifications, new chilled water controls, and new chilled water pump. This project also replaces the control system and installs equipment for dehumidification and pre-treatment of the make-up air. The fume hood industrial exhaust and make-up air will be replaced. This equipment is needed to bring the facility up to standard.

PROJECT JUSTIFICATION:

It has been determined that the status quo is not an option since it cannot provide the required life safety and process requirements needed for the facilities to pursue new work and accomplish their missions. These air conditioning units have reached the end of their useful lives. The equipment is old, unreliable, and incapable of performing under stress, such as maintaining consistent temperature levels in the summertime. The fume hood system deficiencies do not maintain the required exhaust face velocities and make-up air to meet current safety and industrial ventilation requirements and standards. The number of service calls is increasing and maintenance costs are high. The majority of this equipment was identified for replacement by the Facility Assessment Review conducted in 1993.

IMPACT OF DELAY:

People would continue to work in deteriorated substandard facilities, which adversely affects morale and productivity and could compromise the health and safety of personnel. The air conditioning and fume hood systems are critical to the operations in these facilities. Failure of this equipment affects performance and making emergency repairs is expensive and causes significant disruptions.

Figure C.5-b Example Long Form Writeup for Repair Project

Example 3, Discrete Project for Rehabilitation and Modification

PROJECT TITLE: **Rehabilitate and Modify Productivity Enhancement Complex**	INSTALLATION: **Marshall Space Flight Center**
COGNIZANT OFFICE: **Office of Space Flight**	LOCATION: **Madison County, Alabama**

FY 02 COST ESTIMATE (Thousands of Dollars):	**3,600**	**PRIOR YEARS FUNDING:**	**288**
Project Element:		Construction	----
Architectural	1,800	Facility Planning and Design	288
Mechanical	1,100		
Electrical	400		
Structural	300		

PROJECT DESCRIPTION:

This project rehabilitates MSFC's Productivity Enhancement Laboratory (Building 4707). Restoration work includes new insulation; floor surfacing; repair or replacement of door components; repairs and modifications to the heating, ventilating, and air conditioning equipment; relocation of an exhaust system; electrical power distribution and lighting improvements; and interior repairs and painting. A new fire suppression system will be installed to reduce fire hazards in this heavily used development laboratory. Modifications in the Filament Winding area of the building will include raising the height of approximately 5,000 square feet of ceiling to match the height of the adjacent Tape Laying Laboratory area and replacing a 5-ton overhead crane with a 15-ton capacity crane to serve both the filament winding and tape laying laboratories.

PROJECT JUSTIFICATION:

Building 4707 is 44 years old and contains approximately 103,000 square feet of combination high bay and low bay laboratory space. The building is critical to many of NASA's technology development and productivity enhancement initiatives. This facility serves as a model of NASA's new way of doing business in respect to reliability, energy efficiency, and safety. Many of the building's system components have exceeded their design life or are inadequate to satisfy existing requirements or operational improvements. The restoration work will improve reliability, reduce energy costs, and modernize the building to match it's function. Improvements to the Filament Winding Facility are required for the fabrication of larger composite structures under improved environmental controls. There is currently no crane in the filament-winding laboratory that can handle large tooling and fabricated structures.

IMPACT OF DELAY:

Delay of this project will cause Building 4707 to continue to deteriorate, increase unplanned disruptions, and prevent safety improvements and optimum use of the facility. With this facility serving as a model of NASA's new way of doing business, reliable operation and energy and safety upgrades are imperative. Restricting the fabrication of large composite structures will impact the Filament Winding Facility. Without the new crane, lift trucks and other ground support equipment must be used and this limits the number of fabrication operations that can be performed in the facility. Furthermore, composite structures fabricated in the laboratory are extremely sensitive to contaminants generated by fork trucks and other lift vehicles.

Figure C.5-c Example Long Form Writeup for Rehabilitation and Modification Project

Other Forms Applicable to CoF Projects - Samples Only

Following is a list of forms utilized in various phases of the CoF program.

C.6 NASA Form 504, Allotment Authorization, Figure C.6.

C.7 NASA Form 506A, Resources Authority Warrant, Figure C.7.

C.8 NASA Form 1046, Transfer and/or Notification of Acceptance of Accountability of Real Property, Figure C.8-a and back of form Figure C.8-b.

C.9 NASA Form 1046A, Notification of Real Property Transfer, Figure C.9-a and back of form Figure C.9-b.

C.10 NASA Form 800/01, Minor Facility Projects - Summary Brief Project Document, Figure C.10-a, Stipulations sheet Figure C.10-b, and continuation sheet Figure C.10-c..

C.11 DD 1354, Transfer and Acceptance of Military Real Property Figure C.11-a and continuation sheet Figure C.11-b.

C.12 SF 1420, Performance Evaluation - Construction Contracts, Figure C.11-a and continuation sheet Figure C.11-b.

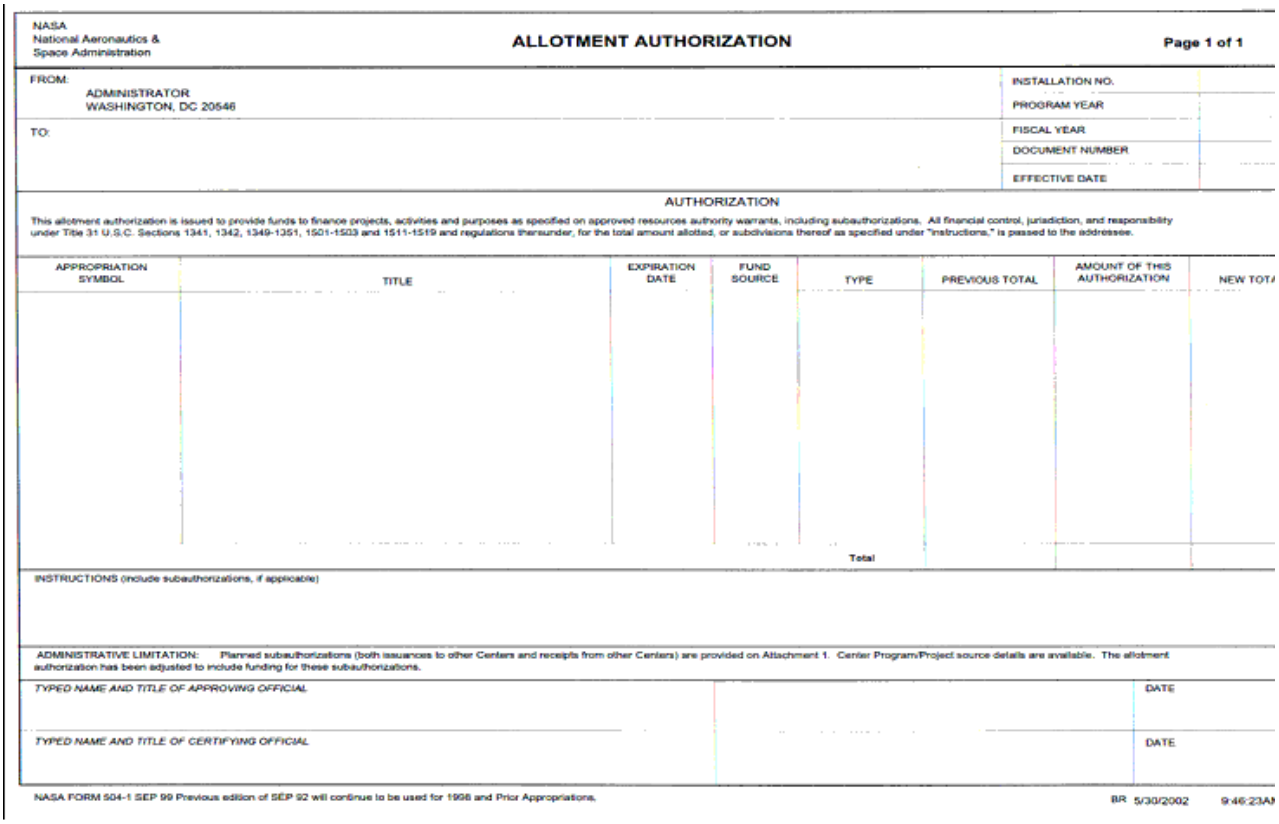
C.13 SF 254, Architect-Engineer and Related Services Questionnaire -This form is available here. Note: It is anticipated SF 330 will replace this form.

C.14 SF 255, Architect-Engineer Related Questionnaire for Specific Project, This form is available here. Note: It is anticipated SF 330 will replace this form.

C.15 Format, Example - POP 5-Year Plan Submittal

C.15 Example - POP 5-Year Plan Submittal

C.6 NASA Form 504, Allotment Authorization



NASA
National Aeronautics &
Space Administration

ALLOTMENT AUTHORIZATION

Page 1 of 1

FROM:
ADMINISTRATOR
WASHINGTON, DC 20546

TO:

INSTALLATION NO.
PROGRAM YEAR
FISCAL YEAR
DOCUMENT NUMBER
EFFECTIVE DATE

AUTHORIZATION

This allotment authorization is issued to provide funds to finance projects, activities and purposes as specified on approved resources authority warrants, including subauthorizations. All financial control, jurisdiction, and responsibility under Title 31 U.S.C. Sections 1341, 1342, 1349-1351, 1501-1503 and 1511-1519 and regulations thereunder, for the total amount allotted, or subdivisions thereof as specified under "Instructions," is passed to the addressee.

APPROPRIATION SYMBOL	TITLE	EXPIRATION DATE	FUND SOURCE	TYPE	PREVIOUS TOTAL	AMOUNT OF THIS AUTHORIZATION	NEW TOTA
				Total			

INSTRUCTIONS (include subauthorizations, if applicable)

ADMINISTRATIVE LIMITATION: Planned subauthorizations (both issuances to other Centers and receipts from other Centers) are provided on Attachment 1. Center Program/Project source details are available. The allotment authorization has been adjusted to include funding for these subauthorizations.

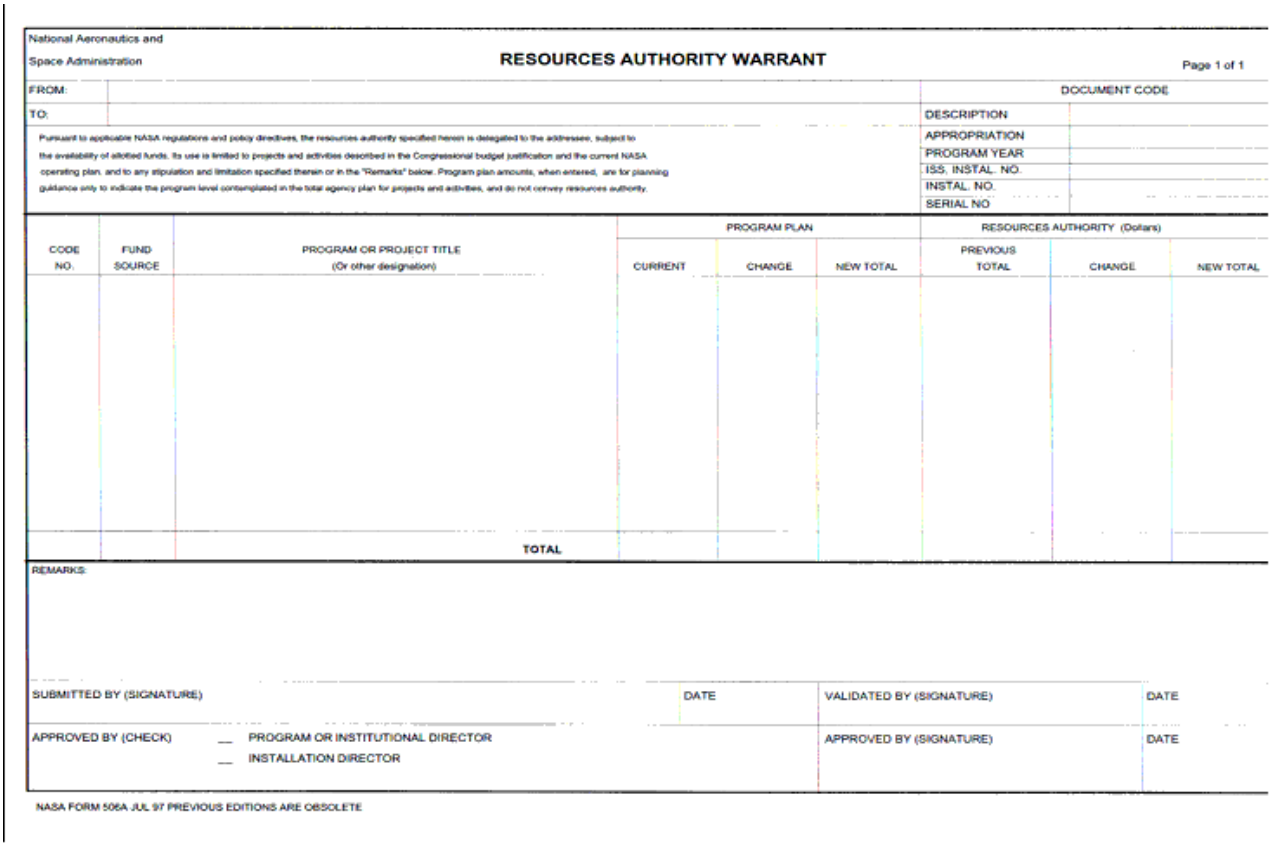
TYPED NAME AND TITLE OF APPROVING OFFICIAL DATE

TYPED NAME AND TITLE OF CERTIFYING OFFICIAL DATE

NASA FORM 504-1 SEP 99 Previous edition of SEP 92 will continue to be used for 1998 and Prior Appropriations. BR 5/30/2002 9:46:23AM

Figure C.6 - NASA Form 504, Allotment Authorization

C.7 NASA Form 506A, Resources Authority Warrant



National Aeronautics and Space Administration

RESOURCES AUTHORITY WARRANT

Page 1 of 1

FROM:

TO:

DOCUMENT CODE

DESCRIPTION

APPROPRIATION

PROGRAM YEAR

ISS, INSTAL. NO.

INSTAL. NO.

SERIAL NO

Pursuant to applicable NASA regulations and policy directives, the resources authority specified herein is delegated to the addressee, subject to the availability of allotted funds, its use is limited to projects and activities described in the Congressional budget justification and the current NASA operating plan, and to any stipulation and limitation specified therein or in the "Remarks" below. Program plan amounts, when entered, are for planning guidance only to indicate the program level contemplated in the total agency plan for projects and activities, and do not convey resources authority.

CODE NO.	FUND SOURCE	PROGRAM OR PROJECT TITLE (Or other designation)	PROGRAM PLAN CURRENT	PROGRAM PLAN CHANGE	PROGRAM PLAN NEW TOTAL	RESOURCES AUTHORITY (Dollars) PREVIOUS TOTAL	RESOURCES AUTHORITY (Dollars) CHANGE	RESOURCES AUTHORITY (Dollars) NEW TOTAL
		TOTAL						

REMARKS:

SUBMITTED BY (SIGNATURE) DATE

VALIDATED BY (SIGNATURE) DATE

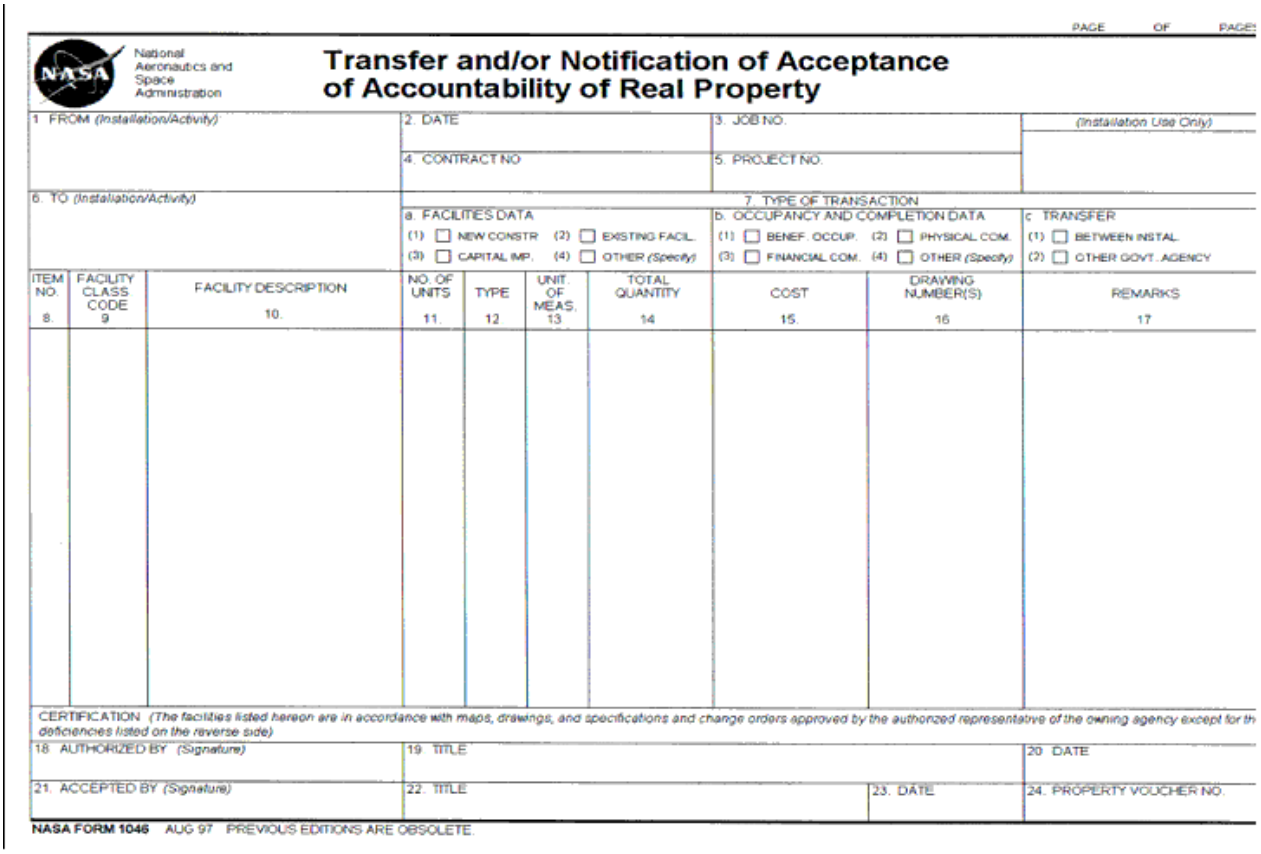
APPROVED BY (CHECK) __ PROGRAM OR INSTITUTIONAL DIRECTOR
__ INSTALLATION DIRECTOR

APPROVED BY (SIGNATURE) DATE

NASA FORM 506A JUL 97 PREVIOUS EDITIONS ARE OBSOLETE

Figure C.7 - NASA Form 506A, Resources Authority Warrant

C.8 NASA Form 1046, Transfer and/or Notification of Acceptance of Accountability of Real Property



PAGE OF PAGES

National Aeronautics and Space Administration

Transfer and/or Notification of Acceptance of Accountability of Real Property

1. FROM (Installation/Activity)	2. DATE	3. JOB NO.	(Installation Use Only)
	4. CONTRACT NO.	5. PROJECT NO.	
6. TO (Installation/Activity)	7. TYPE OF TRANSACTION		
	a. FACILITIES DATA (1) ☐ NEW CONSTR (2) ☐ EXISTING FACIL. (3) ☐ CAPITAL IMP. (4) ☐ OTHER (Specify)	b. OCCUPANCY AND COMPLETION DATA (1) ☐ BENEF. OCCUP. (2) ☐ PHYSICAL COM. (3) ☐ FINANCIAL COM. (4) ☐ OTHER (Specify)	c. TRANSFER (1) ☐ BETWEEN INSTAL. (2) ☐ OTHER GOVT. AGENCY

ITEM NO. 8.	FACILITY CLASS CODE 9	FACILITY DESCRIPTION 10.	NO. OF UNITS 11.	TYPE 12	UNIT OF MEAS. 13	TOTAL QUANTITY 14	COST 15.	DRAWING NUMBER(S) 16	REMARKS 17

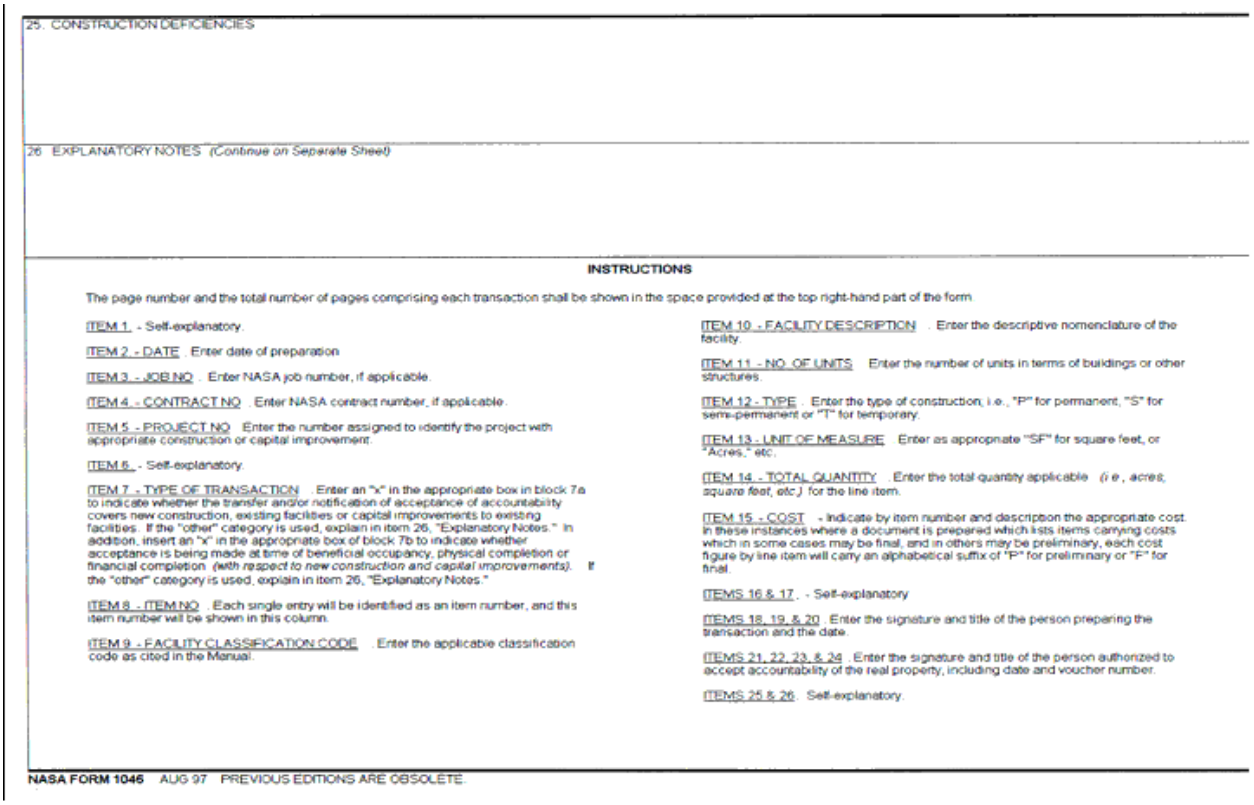
CERTIFICATION *(The facilities listed hereon are in accordance with maps, drawings, and specifications and change orders approved by the authorized representative of the owning agency except for th deficiencies listed on the reverse side)*

18. AUTHORIZED BY (Signature)	19. TITLE		20. DATE
21. ACCEPTED BY (Signature)	22. TITLE	23. DATE	24. PROPERTY VOUCHER NO.

NASA FORM 1046 AUG 97 PREVIOUS EDITIONS ARE OBSOLETE.

Figure C.8-a NASA Form 1046, Transfer and/or Notification of Acceptance of Accountability of Real Property

C.8 NASA Form 1046 (Back of Form), Transfer and/or Notification of Acceptance of Accountability of Real Property



25. CONSTRUCTION DEFICIENCIES

26. EXPLANATORY NOTES *(Continue on Separate Sheet)*

INSTRUCTIONS

The page number and the total number of pages comprising each transaction shall be shown in the space provided at the top right-hand part of the form.

ITEM 1. - Self-explanatory.

ITEM 2. - DATE. Enter date of preparation.

ITEM 3. - JOB NO. Enter NASA job number, if applicable.

ITEM 4. - CONTRACT NO. Enter NASA contract number, if applicable.

ITEM 5. - PROJECT NO. Enter the number assigned to identify the project with appropriate construction or capital improvement.

ITEM 6. - Self-explanatory.

ITEM 7. - TYPE OF TRANSACTION. Enter an "x" in the appropriate box in block 7a to indicate whether the transfer and/or notification of acceptance of accountability covers new construction, existing facilities or capital improvements to existing facilities. If the "other" category is used, explain in item 26, "Explanatory Notes." In addition, insert an "x" in the appropriate box of block 7b to indicate whether acceptance is being made at time of beneficial occupancy, physical completion or financial completion *(with respect to new construction and capital improvements)*. If the "other" category is used, explain in item 26, "Explanatory Notes."

ITEM 8. - ITEM NO. Each single entry will be identified as an item number, and this item number will be shown in this column.

ITEM 9. - FACILITY CLASSIFICATION CODE. Enter the applicable classification code as cited in the Manual.

ITEM 10. - FACILITY DESCRIPTION. Enter the descriptive nomenclature of the facility.

ITEM 11. - NO. OF UNITS. Enter the number of units in terms of buildings or other structures.

ITEM 12. - TYPE. Enter the type of construction, i.e., "P" for permanent, "S" for semi-permanent or "T" for temporary.

ITEM 13. - UNIT OF MEASURE. Enter as appropriate "SF" for square feet, or "Acres," etc.

ITEM 14. - TOTAL QUANTITY. Enter the total quantity applicable *(i.e., acres, square feet, etc.)* for the line item.

ITEM 15. - COST. - Indicate by item number and description the appropriate cost. In these instances where a document is prepared which lists items carrying costs which in some cases may be final, and in others may be preliminary, each cost figure by line item will carry an alphabetical suffix of "P" for preliminary or "F" for final.

ITEMS 16 & 17. - Self-explanatory.

ITEMS 18, 19, & 20. Enter the signature and title of the person preparing the transaction and the date.

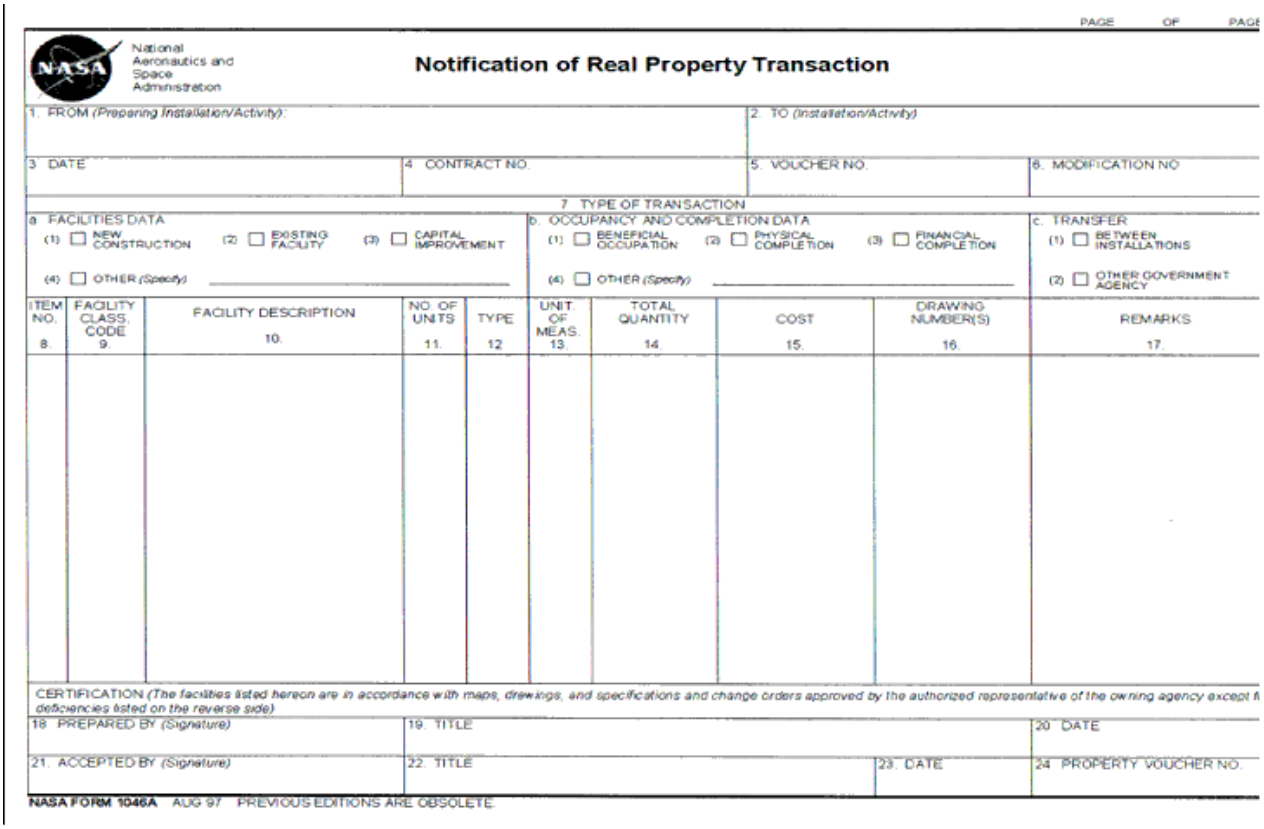
ITEMS 21, 22, 23, & 24. Enter the signature and title of the person authorized to accept accountability of the real property, including date and voucher number.

ITEMS 25 & 26. Self-explanatory.

NASA FORM 1046 AUG 97 PREVIOUS EDITIONS ARE OBSOLETE.

Figure C.8-b NASA Form 1046, Transfer and/or Notification of Acceptance of Accountability of Real Property (Back of Form)

C.9 NASA Form 1046A, Notification Real Property Transfer



PAGE OF PAGE

National Aeronautics and Space Administration

Notification of Real Property Transaction

1. FROM *(Preparing Installation/Activity)*: | 2. TO *(Installation/Activity)*

3. DATE | 4. CONTRACT NO. | 5. VOUCHER NO. | 6. MODIFICATION NO.

7. TYPE OF TRANSACTION

a. FACILITIES DATA
(1) ☐ NEW CONSTRUCTION (2) ☐ EXISTING FACILITY (3) ☐ CAPITAL IMPROVEMENT
(4) ☐ OTHER *(Specify)* _____

b. OCCUPANCY AND COMPLETION DATA
(1) ☐ BENEFICIAL OCCUPATION (2) ☐ PHYSICAL COMPLETION (3) ☐ FINANCIAL COMPLETION
(4) ☐ OTHER *(Specify)* _____

c. TRANSFER
(1) ☐ BETWEEN INSTALLATIONS
(2) ☐ OTHER GOVERNMENT AGENCY

ITEM NO. 8.	FACILITY CLASS. CODE 9.	FACILITY DESCRIPTION 10.	NO. OF UNITS 11.	TYPE 12.	UNIT OF MEAS. 13.	TOTAL QUANTITY 14.	COST 15.	DRAWING NUMBER(S) 16.	REMARKS 17.

CERTIFICATION *(The facilities listed hereon are in accordance with maps, drawings, and specifications and change orders approved by the authorized representative of the owning agency except fo deficiencies listed on the reverse side)*

18. PREPARED BY *(Signature)* | 19. TITLE | 20. DATE

21. ACCEPTED BY *(Signature)* | 22. TITLE | 23. DATE | 24. PROPERTY VOUCHER NO.

NASA FORM 1046A AUG 97 PREVIOUS EDITIONS ARE OBSOLETE.

Figure C.9-a NASA Form 1046A, 1046A, Notification Real Property Transfer

C.9 NASA Form 1046A (Back of Form), 1046A, Notification Real Property Transfer

25. CONSTRUCTION DEFICIENCIES

26. EXPLANATORY NOTES *(Continue on Separate Sheet)*

INSTRUCTIONS

The page number and the total number of pages comprising each transaction shall be shown in the space provided at the top right-hand part of the form.

ITEM 1. - Self-explanatory.

ITEM 2. - Self-explanatory.

ITEM 2. - DATE. Enter date of preparation.

ITEM 4. - CONTRACT NO. Enter NASA contract number, if applicable.

ITEM 5. - VOUCHER NO. Enter voucher number in accordance with instructions in the Manual.

ITEM 5. - MODIFICATION NO. Enter the number assigned to identify the modification of item 4.

ITEM 7. - TYPE OF TRANSACTION. Enter an "x" in the appropriate box in block 7a to indicate whether the transfer and/or notification of acceptance of accountability covers new construction, existing facilities or capital improvements to existing facilities. If the "other" category is used, explain in item 26, "Explanatory Notes." In addition, insert an "x" in the appropriate box of block 7b to indicate whether acceptance is being made at time of beneficial occupancy, physical completion or financial completion (with respect to new construction and capital improvements). If the "other" category is used, explain in item 26, "Explanatory Notes."

ITEM 8. - ITEM NO. Each single entry will be identified as an item number, and this item number will be shown in this column.

ITEM 9. - FACILITY CLASSIFICATION CODE. Enter the applicable classification code as cited in the Manual.

ITEM 10. - FACILITY DESCRIPTION. Enter the descriptive nomenclature of the facility.

ITEM 11. - NO. OF UNITS. Enter the number of units in terms of buildings or other structures.

ITEM 12. - TYPE. Enter the type of construction; i.e., "P" for permanent, "S" for semi-permanent or "T" for temporary.

ITEM 13. - UNIT OF MEASURE. Enter as appropriate "SF" for square feet, or "Acres," etc.

ITEM 14. - TOTAL QUANTITY. Enter the total quantity applicable (i.e., acres, square feet, etc.) for the line item.

ITEM 15. - COST. - Indicate by item number and description the appropriate cost. In these instances where a document is prepared which lists items carrying costs which in some cases may be final, and in others may be preliminary, each cost figure by line item will carry an alphabetical suffix of "P" for preliminary or "F" for final.

ITEMS 16 & 17, - Self-explanatory.

ITEMS 18, 19, & 20. Enter the signature and title of the person preparing the transaction and the date.

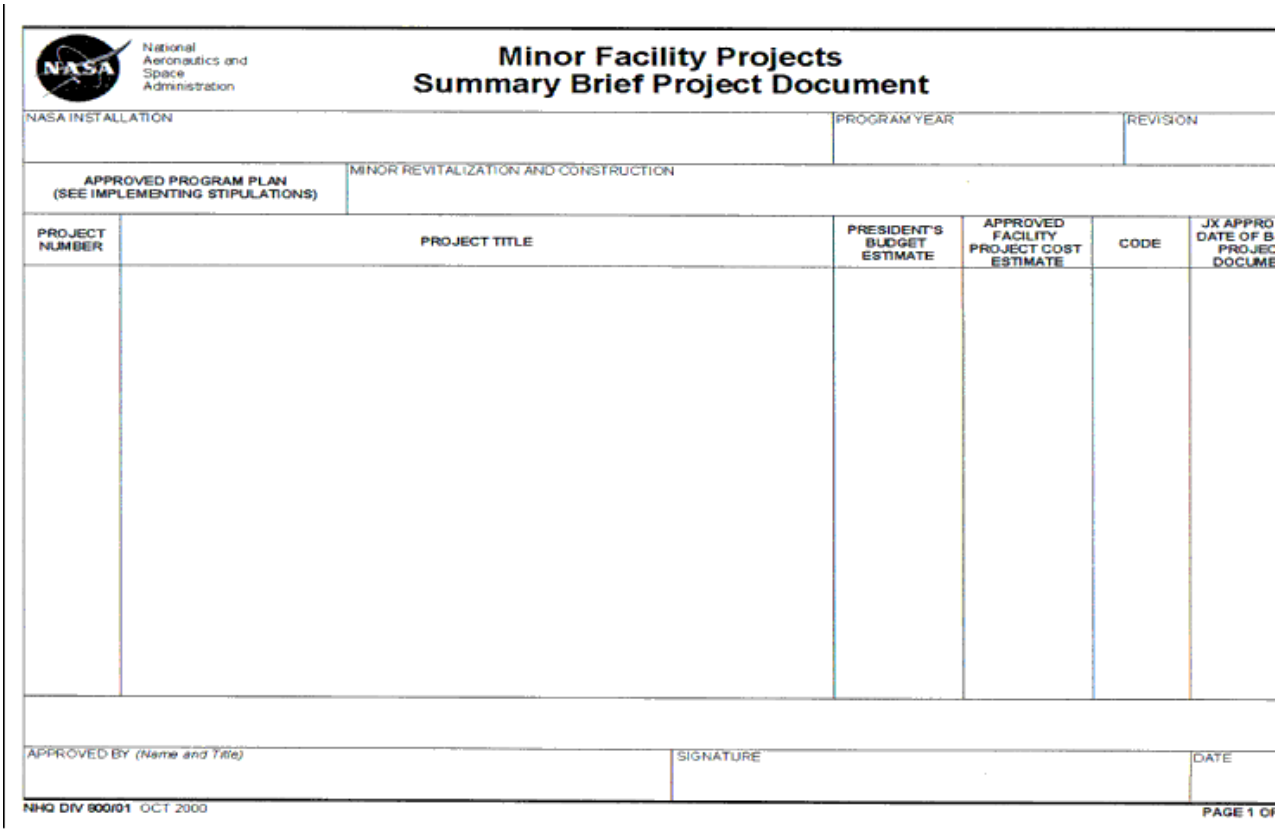
ITEMS 21, 22, 23, & 24. Enter the signature and title of the person authorized to accept accountability of the real property, including date and voucher number.

ITEMS 25 & 26. Self-explanatory.

NASA FORM 1046A AUG 97 PREVIOUS EDITIONS ARE OBSOLETE.

Figure C.9-b NASA Form 1046A, 1046A, Notification Real Property Transfer (Back of Form)

C.10 NASA Minor Facility Projects - Summary Brief Project Document



National Aeronautics and Space Administration

Minor Facility Projects
Summary Brief Project Document

NASA INSTALLATION		PROGRAM YEAR	REVISION
APPROVED PROGRAM PLAN (SEE IMPLEMENTING STIPULATIONS)	MINOR REVITALIZATION AND CONSTRUCTION		

PROJECT NUMBER	PROJECT TITLE	PRESIDENT'S BUDGET ESTIMATE	APPROVED FACILITY PROJECT COST ESTIMATE	CODE	JX APPRO DATE OF B PROJEC DOCUME

APPROVED BY *(Name and Title)*	SIGNATURE	DATE

NHQ DIV 800/01 OCT 2000 PAGE 1 OF

Figure C.10-a NASA Minor Facility Projects - Summary Brief Project Document

C.10 NASA Minor Facility Projects - Summary Brief Project Document Stipulations

.

Minor Facility Projects
Summary Brief Project Document

INSTALLATION | FY/PY | REVISION

STIPULATIONS

The following applies to the implementation of the Minor Facility Projects shown hereon. The projects are funded from Construction of Facilities.

1. Projects implemented under the authority of this summary shall conform with the intent and scope set forth in the referenced Brief Project Document (NASA Form 1509) as approved by the Director, Facilities Engineering Division.

2. The amount shown in "Approved Program Plan" indicates the total resources available by related Resources Authority Warrant (NASA FORM 506A). At no time may fiscal obligations exceed this amount.

3. Projects may be implemented in any order as approved by appropriate Installation Management. The Approved Facility Project Cost Estimate may be increased by up to, but not exceed, 25 percent provided:

   a. The total of the estimates of all work awarded and any to be awarded to complete an action under consideration does not exceed the amount of "Approved Program Plan".

   b. The Facility Project Cost Estimate of any individual Minor Revitalization or Minor Construction project does not exceed $1,500,000.

4. Any change in intent, scope or increase in project above the Approved Facility Project Cost Estimate of more than 25 percent as well as the introduction of a new, additional or substitute project will require the advance approval of the Director, Facilities Engineering Division by means of appropriate revised Brief Project Document (NASA Form 1509) or documents as applicable.

5. As each project is implemented, commitments, obligations, etc., are to be reported against its assigned project number.

6. Notifications of bids received per Chapter 6.4.5 NHB 8820.2 (Facility Project Implementation Handbook) is required.

CODES

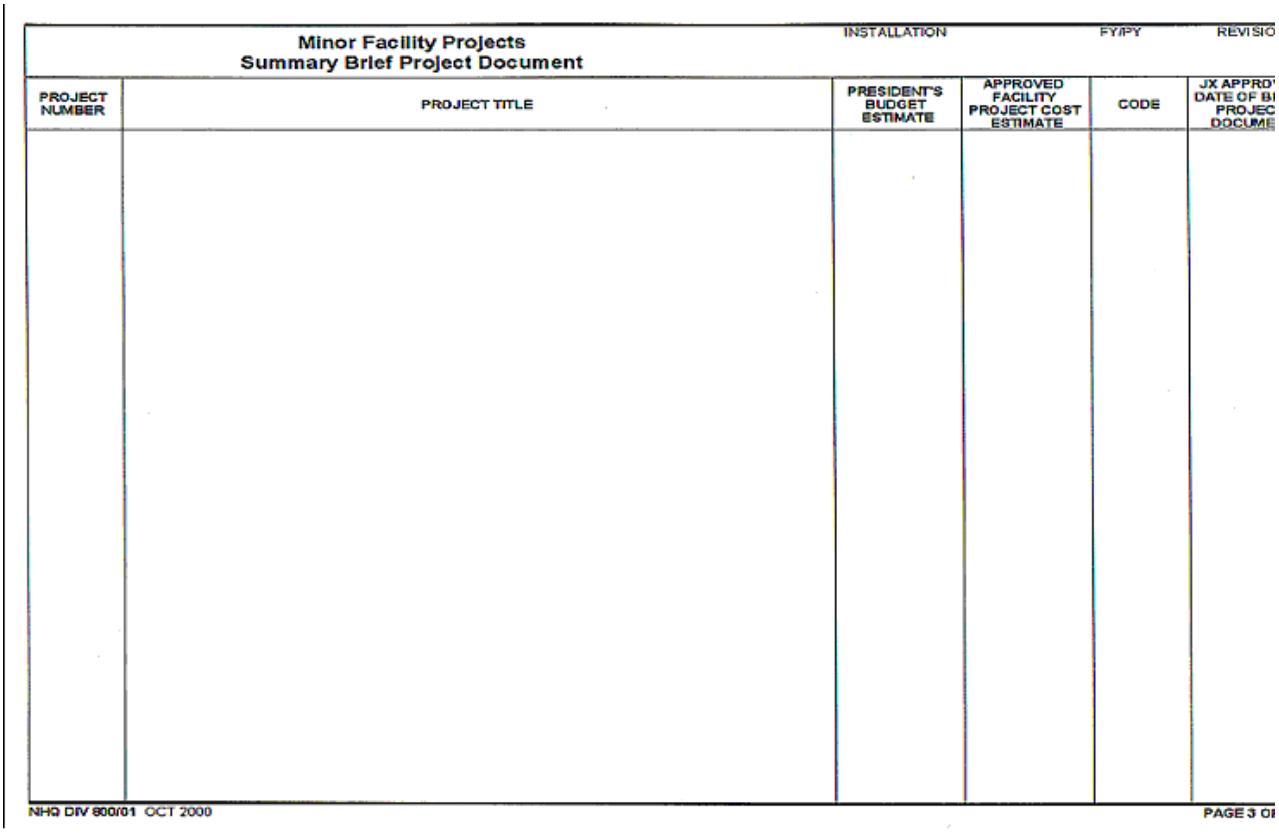
20___	-	Year submitted in President's Budget.
C	-	Not included in any approved President's Budget.
X	-	Project previously approved but now canceled.

NHQ DIV 800/01 OCT 2000

PAGE 2 OF __

Figure C.10-b Minor Facility Projects - Summary Brief Project Document Stipulations

C.10 NASA Minor Facility Projects - Summary Brief Project Document (Continuation)



Minor Facility Projects
Summary Brief Project Document

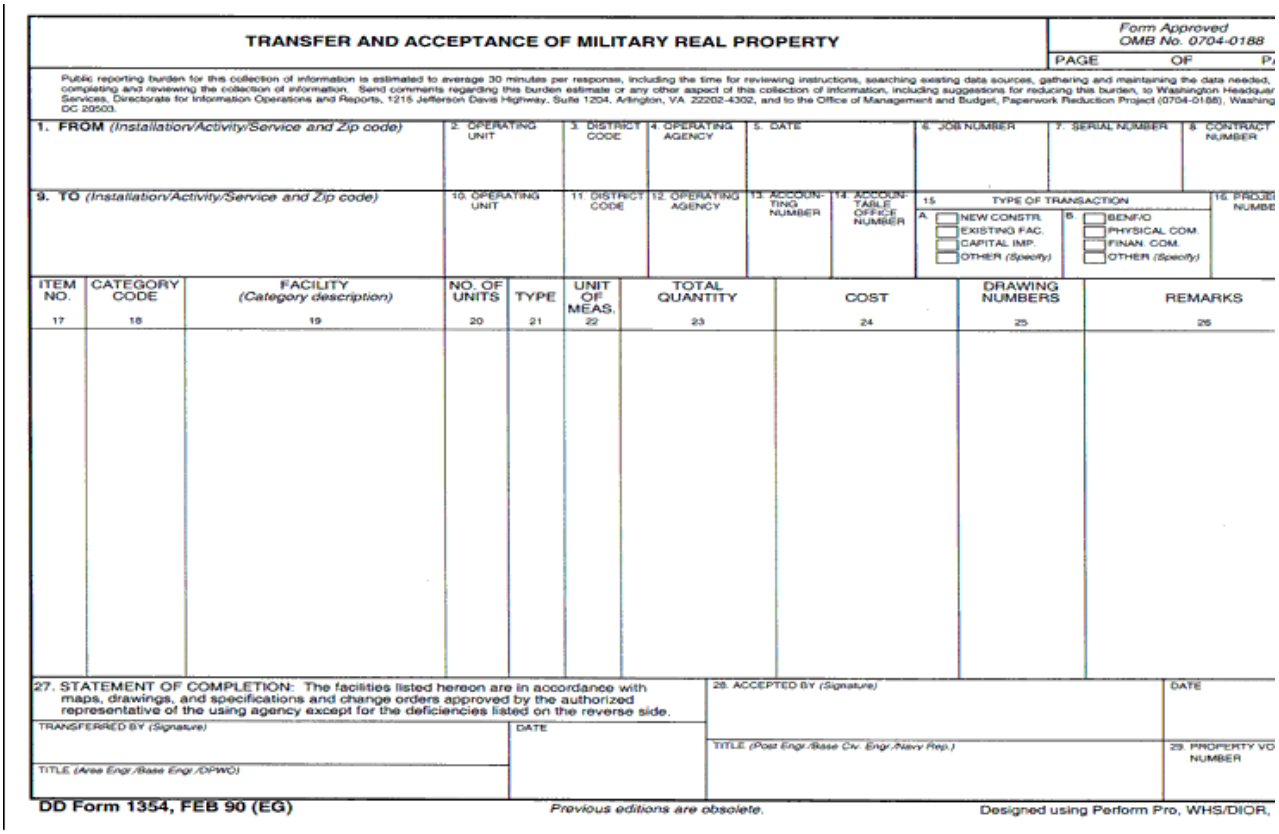
INSTALLATION FY/PY REVISIO

PROJECT NUMBER	PROJECT TITLE	PRESIDENT'S BUDGET ESTIMATE	APPROVED FACILITY PROJECT COST ESTIMATE	CODE	JX APPRD' DATE OF BI PROJEC DOCUME

NHQ DIV 800/01 OCT 2000 PAGE 3 OI

Figure C.10-c Minor Facility Projects - Summary Brief Project Document (Continuation)

C.11 DD Form 1354, Transfer and Acceptance of Millitary Real Property (Link to DOD Site for Form 1354, http://web1.whs.osd.mil/forms/DD1354.PDF



TRANSFER AND ACCEPTANCE OF MILITARY REAL PROPERTY

Form Approved
OMB No. 0704-0188

PAGE OF P

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquar Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washing DC 20503.

1. FROM *(Installation/Activity/Service and Zip code)*	2. OPERATING UNIT	3. DISTRICT CODE	4. OPERATING AGENCY	5. DATE	6. JOB NUMBER	7. SERIAL NUMBER	8. CONTRACT NUMBER

9. TO *(Installation/Activity/Service and Zip code)*	10. OPERATING UNIT	11. DISTRICT CODE	12. OPERATING AGENCY	13. ACCOUNTING NUMBER	14. ACCOUNTABLE OFFICE NUMBER	15. TYPE OF TRANSACTION	16. PROJE NUMBE
						A. ☐ NEW CONSTR. ☐ EXISTING FAC. ☐ CAPITAL IMP. ☐ OTHER *(Specify)* B. ☐ BENF/O ☐ PHYSICAL COM. ☐ FINAN. COM. ☐ OTHER *(Specify)*	

ITEM NO. 17	CATEGORY CODE 18	FACILITY *(Category description)* 19	NO. OF UNITS 20	TYPE 21	UNIT OF MEAS. 22	TOTAL QUANTITY 23	COST 24	DRAWING NUMBERS 25	REMARKS 26

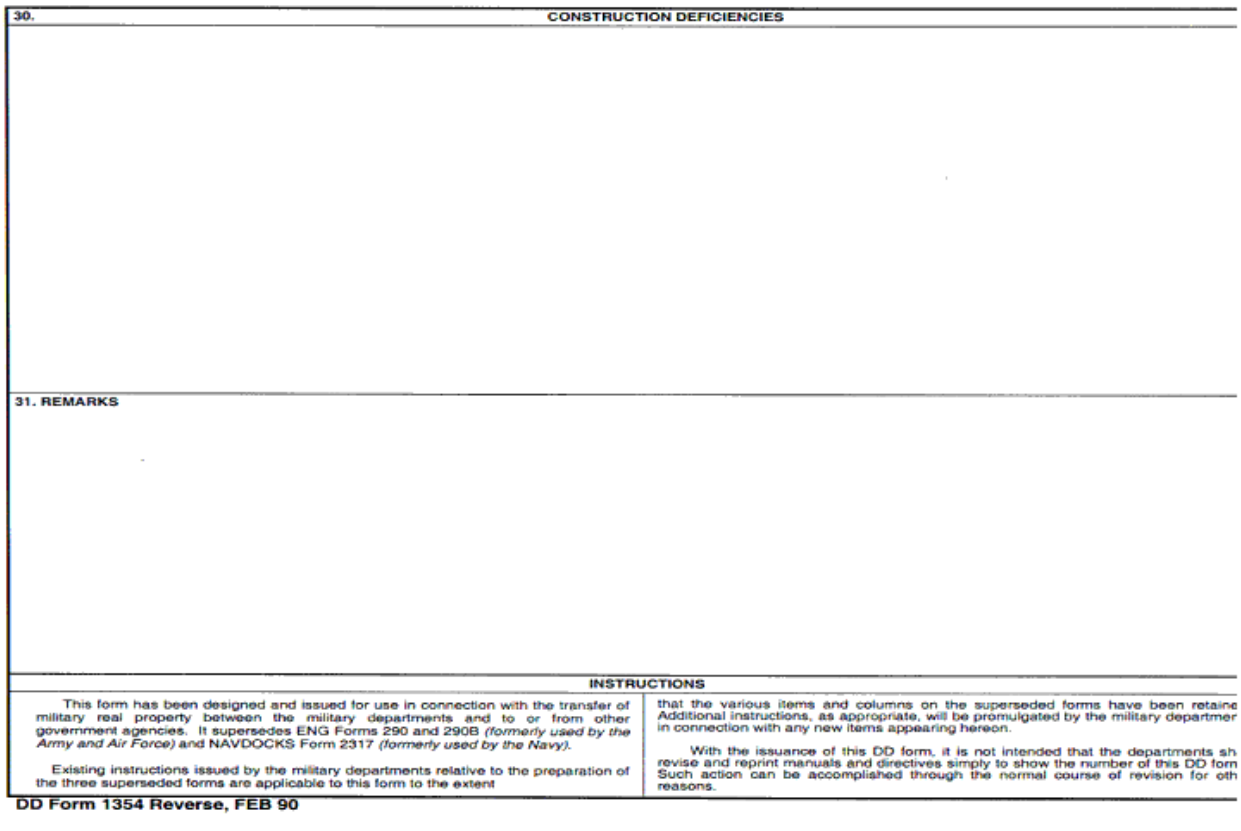
27. STATEMENT OF COMPLETION: The facilities listed hereon are in accordance with maps, drawings, and specifications and change orders approved by the authorized representative of the using agency except for the deficiencies listed on the reverse side.

TRANSFERRED BY *(Signature)*	DATE	28. ACCEPTED BY *(Signature)*	DATE
TITLE *(Area Engr./Base Engr./DPWO)*		TITLE *(Post Engr./Base Civ. Engr./Navy Rep.)*	29. PROPERTY VO NUMBER

DD Form 1354, FEB 90 (EG) *Previous editions are obsolete.* Designed using Perform Pro, WHS/DIOR,

Figure C.11-a DD Form 1354, Transfer and Acceptance of Millitary Real Property

C.11 DD Form 1354 (Continuation), Construction Deficiencies



30. CONSTRUCTION DEFICIENCIES
31. REMARKS

INSTRUCTIONS

This form has been designed and issued for use in connection with the transfer of military real property between the military departments and to or from other government agencies. It supersedes ENG Forms 290 and 290B *(formerly used by the Army and Air Force)* and NAVDOCKS Form 2317 *(formerly used by the Navy)*.

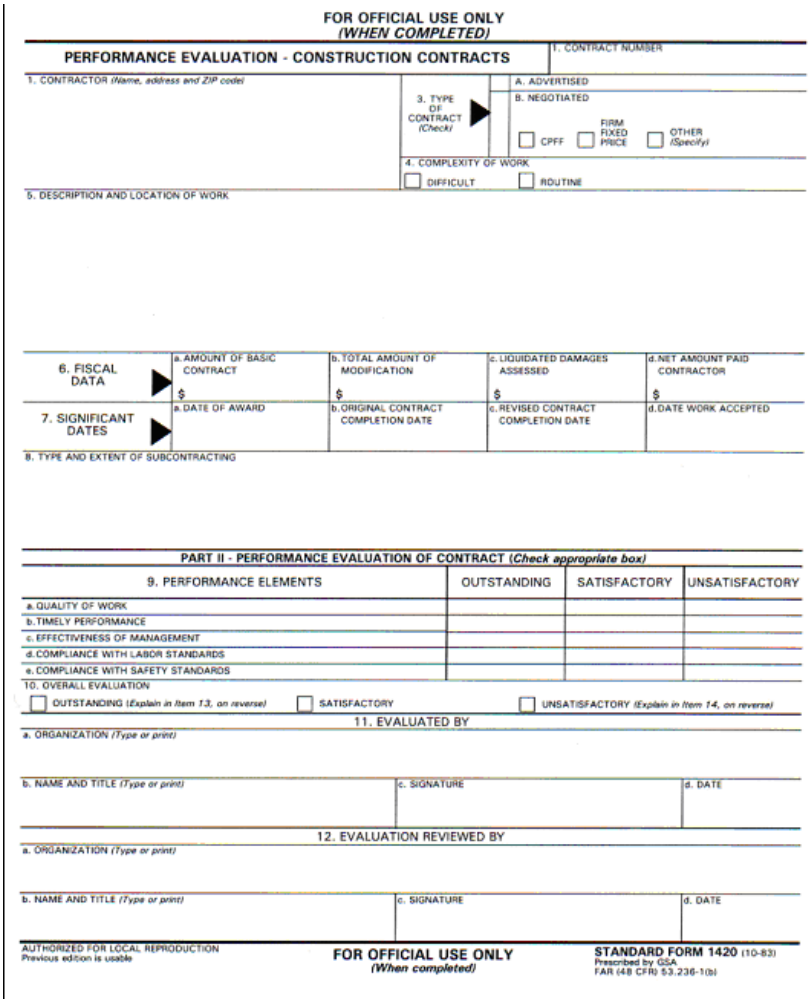
Existing instructions issued by the military departments relative to the preparation of the three superseded forms are applicable to this form to the extent that the various items and columns on the superseded forms have been retaine Additional instructions, as appropriate, will be promulgated by the military departmer in connection with any new items appearing hereon.

With the issuance of this DD form, it is not intended that the departments sh revise and reprint manuals and directives simply to show the number of this DD forn Such action can be accomplished through the normal course of revision for oth reasons.

DD Form 1354 Reverse, FEB 90

Figure C.11-b DD Form 1354, Transfer and Acceptance of Millitary Real Property (Continuation)

C.12 Standard Form 1420, Performance Evaluation - Construction Contracts



FOR OFFICIAL USE ONLY
(WHEN COMPLETED)

PERFORMANCE EVALUATION - CONSTRUCTION CONTRACTS

1. CONTRACTOR *(Name, address and ZIP code)*
2. CONTRACT NUMBER
3. TYPE OF CONTRACT *(Check)*
A. ADVERTISED
B. NEGOTIATED
CPFF FIRM FIXED PRICE OTHER *(Specify)*
4. COMPLEXITY OF WORK
DIFFICULT ROUTINE
5. DESCRIPTION AND LOCATION OF WORK

	a. AMOUNT OF BASIC CONTRACT	b. TOTAL AMOUNT OF MODIFICATION	c. LIQUIDATED DAMAGES ASSESSED	d. NET AMOUNT PAID CONTRACTOR
6. FISCAL DATA	$	$	$	$
7. SIGNIFICANT DATES	a. DATE OF AWARD	b. ORIGINAL CONTRACT COMPLETION DATE	c. REVISED CONTRACT COMPLETION DATE	d. DATE WORK ACCEPTED

8. TYPE AND EXTENT OF SUBCONTRACTING

PART II - PERFORMANCE EVALUATION OF CONTRACT (*Check appropriate box*)

9. PERFORMANCE ELEMENTS	OUTSTANDING	SATISFACTORY	UNSATISFACTORY
a. QUALITY OF WORK			
b. TIMELY PERFORMANCE			
c. EFFECTIVENESS OF MANAGEMENT			
d. COMPLIANCE WITH LABOR STANDARDS			
e. COMPLIANCE WITH SAFETY STANDARDS			

10. OVERALL EVALUATION
OUTSTANDING *(Explain in Item 13, on reverse)* SATISFACTORY UNSATISFACTORY *(Explain in Item 14, on reverse)*

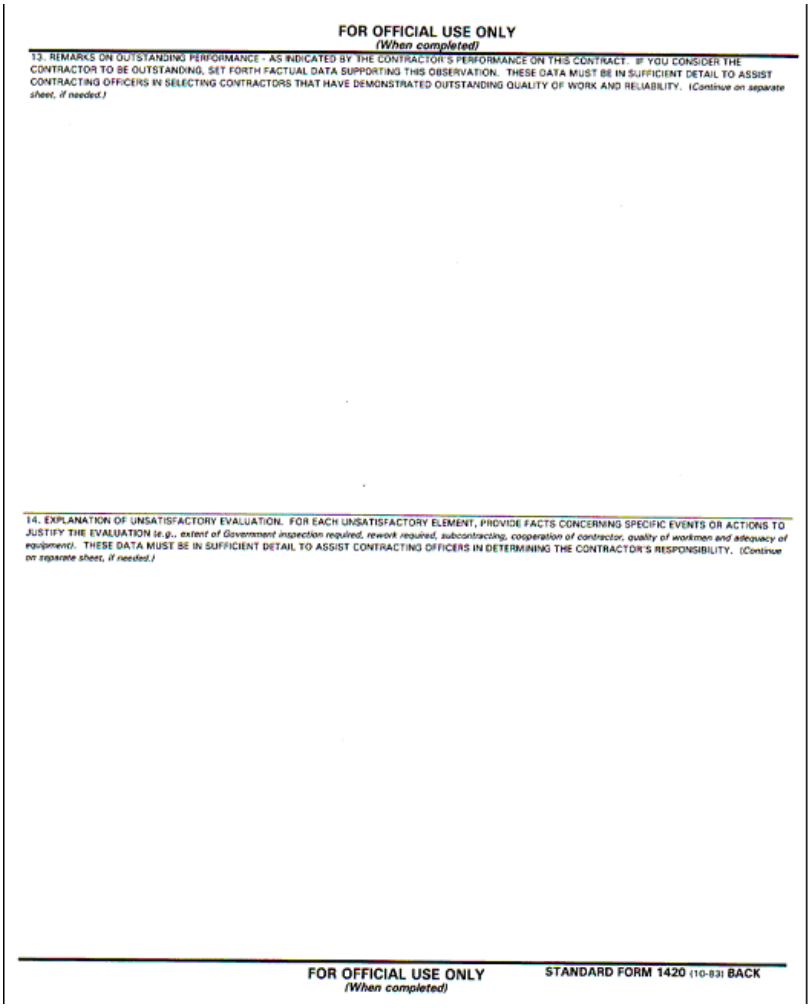
11. EVALUATED BY
a. ORGANIZATION *(Type or print)*
b. NAME AND TITLE *(Type or print)* c. SIGNATURE d. DATE

12. EVALUATION REVIEWED BY
a. ORGANIZATION *(Type or print)*
b. NAME AND TITLE *(Type or print)* c. SIGNATURE d. DATE

AUTHORIZED FOR LOCAL REPRODUCTION
Previous edition is usable
FOR OFFICIAL USE ONLY
(When completed)
STANDARD FORM 1420 (10-83)
Prescribed by GSA
FAR (48 CFR) 53.236-1(b)

Figure C.12-a Standard Form 1420, Performance Evaluation - Construction Contracts

C.12 Standard Form 1420 (Continuation), Performance Evaluation - Construction Contracts



FOR OFFICIAL USE ONLY
(When completed)

13. REMARKS ON OUTSTANDING PERFORMANCE - AS INDICATED BY THE CONTRACTOR'S PERFORMANCE ON THIS CONTRACT. IF YOU CONSIDER THE CONTRACTOR TO BE OUTSTANDING, SET FORTH FACTUAL DATA SUPPORTING THIS OBSERVATION. THESE DATA MUST BE IN SUFFICIENT DETAIL TO ASSIST CONTRACTING OFFICERS IN SELECTING CONTRACTORS THAT HAVE DEMONSTRATED OUTSTANDING QUALITY OF WORK AND RELIABILITY. *(Continue on separate sheet, if needed.)*

14. EXPLANATION OF UNSATISFACTORY EVALUATION. FOR EACH UNSATISFACTORY ELEMENT, PROVIDE FACTS CONCERNING SPECIFIC EVENTS OR ACTIONS TO JUSTIFY THE EVALUATION *(e.g., extent of Government inspection required, rework required, subcontracting, cooperation of contractor, quality of workmen and adequacy of equipment).* THESE DATA MUST BE IN SUFFICIENT DETAIL TO ASSIST CONTRACTING OFFICERS IN DETERMINING THE CONTRACTOR'S RESPONSIBILITY. *(Continue on separate sheet, if needed.)*

FOR OFFICIAL USE ONLY
(When completed)
STANDARD FORM 1420 (10-83) BACK

Figure C.12-b Standard Form 1420, Performance Evaluation - Construction Contracts (Continuation)

POP 2002 Worksheet 1 for Construction of Facilities: COF DETAILED BUDGET SUBMISSION ($000) 4/25/02

CENTER: **XXX**

Institutional (Mission Support):	FY 04		FY 05		FY 06		FY 07		FY 08	
	Title	Cost	Title	Cost	Title	Cost	Title	Cost	Title	Cost
a. Discrete (projects over $1.5M)	Upgrade Electric Propulsion Research Building, Phase 1 (16)	4,600	Upgrade Electric Propulsion Research Building, Phase 2 (16)	4,400	Repair Roofs and Masonry, Various Buildings	4,800	Rehab of Development Engineering Building (500)	3,000	Replace 34.5 kV Transformers at Sub J & M	4,600
	Repair Roofs and Masonry, Various Buildings	1,600	Rehab HVAC System, Ad Bldg. (3)	4,600	Repair Parking Lots and Roads	3,200	Repair Building Foundations & Drianage	2,500	Replace 34.5 kV Transformers at Sub J & M	3,400
	Replace Turboexpanders	2,700					Repair Parking Lots & Roads	2,500		
	Total	**8,900**		**9,000**		**8,000**		**8,000**		**8,000**

b. Minor Program Projects (projects $0.5M to $1.5M)	Rehab & Mod of model Fabrication & Instrument Facility	1,100	Repair High Voltage Switchgear	900	Lump Sum	**7,000**	Lump Sum	**8,000**			
	Repair High Voltage System, Plum Brook	1,200	Rehab Mechanical Systems, CAEB, Phaze 1 (64)	1,200							
	Rehab of OMPVE Crystal Growth Fac	1,100									
	Total	**3,400**		**2,100**							
c. Facility Planning & Design	Lump Sum	1,500	Lump Sum	1,600	Lump Sum	1,600	Lump Sum	1,600	Lump Sum	1,600	
	Grand Total	**13,800**	**Grand Total**	**12,700**	**Grand Total**	**16,600**	**Grand Total**	**17,600**	**Grand Total**	**17,600**	

Program Direct:	FY 04		FY 05	FY 06	FY 07	FY 08
	Title	Cost ($000)				
a. Discrete (projects over $1.5M)	N/A				N/A	N/A
b. Minor Program Projects (projects $0.5M to $1.5M) (Revitalization and Minor Construction)			N/A	N/A	N/A	N/A
c. Facility Planning & Design	N/A		N/A	N/A	N/A	N/A
	Grand Total	**0**	**0**	**0**	**0**	**0**

POP 02 Worksheet 2 for CoF: COF FY 2004 INTEGRATED INSTITUTIONAL PROJECT SUMMARY

CENTER: **XXX**
Integrated Priority List of Discrete and Minor Institutional Projects

FY04 Title	(E) Construction Cost ($000)
Upgrade Electric Propulsion Research Building, Phase 1 (16)	4,600
Repair Roofs and Masonry, Various Buidings	1,600
Replace Turboexpanders (124)	2,700
Rehab & mod of Model Fabrication & Instrument Facility, Phase 4 (14)	1,100
Repair High Voltage System, Plum Brook	1,200
Rehab of OMPVE Crystal Grows Facility (302)	1,100
CoF Program Total	12,300

Figure C.15, Example - POP 5-Year Plan Submittal

| TOC | Preface | Chapter1 | Chapter2 | Chapter3 | Chapter4 | Chapter5 | Chapter6 | AppendixA | AppendixB | AppendixC | AppendixD | AppendixE | AppendixF | AppendixG | AppendixH | image022 | image023 | Image3-1 | Image_G-1 | ALL |

| NODIS Library | Program Management(8000s) | Search |

DISTRIBUTION:
NODIS